

In-work Poverty in the East Midlands

A report for *emda*

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IN-WORK POVERTY IN THE EAST MIDLANDS

August 2010

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Key Messages

The incidence of low-paid employment in the East Midlands is higher than that observed across the UK as a whole - approximately a quarter of individuals working within the East Midlands in 2009 were employed in low-paid occupations; in 2008 just over 30 per cent worked in low-paid sectors; in 2008/09 approximately 14-18 per cent had hourly earnings less than 60 per cent of median hourly earnings.

The level of in-work poverty in the East Midlands has increased since 2004/05 from 11 per cent to 14 per cent - as defined by the 60 per cent median income threshold and after housing costs – low housing costs in the East Midlands mean that this is slightly lower than the UK average; on a before housing costs basis just over 10 per cent of East Midlands individuals living in working families lived below the poverty threshold compared to the UK average of just over 9 per cent.

There are significant implications for the equalities agenda - the incidence of employment within low-paid jobs in the East Midlands is disproportionately concentrated among women, the young, non-white people and among those not born in the UK. This picture is similar to the UK as a whole. In-work poverty is increasingly prevalent in families within the East Midlands that are headed by women, young people, a non-white person or a lone parent.

Low-paid employment in the East Midlands is concentrated in the retail, hospitality, and social care sectors - the sectoral and occupational structures of the region are not projected to change significantly over the medium-term.

There are sub-regional variations - Lincolnshire exhibits the highest incidence of low-paid work, both on a workplace-basis and residence-basis. There are also concentrations of low-paid work in the region's main cities.

In work-poverty can be seen as linked to a regional low pay-low skill equilibrium which can: push down wages; drive down regional consumption levels with regional domestic demand falling because employers engaged in low-skill, low value work will have a limited demand for high value intermediate products which might be sourced locally; and employees will have relatively low disposable income to spend on locally produced products and services.

Some aspects of the 'high-road' model of economic development offer useful considerations - these are based on competitive advantage being gained through innovation, enhanced quality of products and services, and up-skilling, with training and continuous workforce development as integral elements.

There are six specific policy considerations relating to: skills; innovation; priority sectors; pathways for advancement within low pay sectors; working with individual employers and/or through sectoral/spatial employer networks; and raising awareness of the issue and consequences of in-work poverty - particularly for certain sub-groups to facilitate economic and social inclusion.

With the Government's focus on localism, economic development and well-being, local authorities, business bodies and third sector organisations will have a crucial role in moving forward on what are complex, challenging but critical issues.

Executive Summary

1. Introduction

In-work Poverty in the East Midlands was commissioned by *emda* to provide a detailed assessment of the issue of in-work poverty in the East Midlands and its implications for regional economic performance.

The research, and this report, is based on four substantive elements:

- a systematic literature review on in-work poverty;
- an analysis of the scale and distribution of low-paid workers in the region, and the level of in-work poverty;
- a discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium'; and
- conclusions and policy considerations.

The policy context

- Literature confirms that employment is the single most effective means of tackling poverty and social exclusion, but an issue of increasing concern is that of in-work poverty; nationally, in each of the last three years, in-work poverty has accounted for more than half of all child poverty.
- The importance of economic inclusion for public bodies is demonstrated through a number of developments including The Equality Act 2010, which creates a new public sector duty related to reducing socio-economic inequalities.

The East Midlands context

The East Midlands is characterised by a 'low pay-low skill equilibrium'.

- Notwithstanding recent improvements, the region has one of the lowest proportions of its workforce educated to degree level in the UK.
- The region's industrial and business structure has resulted in a relatively weak demand for skills, with individuals' earnings in the East Midlands being, on average, lower than the UK average.
- The region has a relatively high employment rate (greater than the UK-wide average) but this is partly maintained by a significant number of low pay, low skill jobs. Average earnings are relatively low in the region and a relatively large number of people in the region have no formal qualifications.
- The East Midlands demonstrates a productivity gap relative to the UK as a whole.
- These points have serious implications, both direct and indirect, for in-work poverty in the region.

2. The literature review on in-work poverty

Chapter 2 presents findings from the review of the literature on in-work poverty and includes:

- a general introduction to in-work poverty;
- definitions of in-work poverty;
- measurement of in-work poverty;
- the cycle of in-work poverty; and
- national level policies related to in-work poverty.

Key points are:

- There is very little direct literature on in-work poverty, although there is an extensive literature on contextual issues around low pay, poverty and inequality.
- In-work poverty can be linked to changes in the labour market; in particular there has been a polarisation between employees who are working in relatively stable, well-paid, skilled jobs on the one hand, and those who are in unstable, low-skilled, low-paid employment.
- There are a range of different definitions of in-work poverty, but a standard definition of in-work poverty that is used in much of the literature is: people who live in households where at least one member is classified as employed and whose household disposable income is below 60 per cent of median income.
- Another way of defining the in-work poor is if a person works in an occupation or sector that is particularly likely to be low-paid.
- Labour market churn and the cycle of in-work/out-of-work poverty is a significant issue, highlighting the importance of sustainable jobs; 40 per cent of Jobseeker's Allowance claimants who move into work return to claiming out of work benefits within six months.
- Labour market churn is particularly common in agriculture, tourism and the retail industry and among those working in elementary trades and plant and storage occupations.
- Research also suggests that cycling between work and unemployment is particularly common amongst people working in low-paid jobs in the service sector. This is more of an issue in some East Midlands sub-regions than others.
- In addition, there are some groups that are particularly likely to experience in-work poverty. Women, lone parents, young people, ethnic minorities, disabled people and people with low or no qualifications are disproportionately likely to experience low pay and poverty.
- National level policies related to in-work poverty focus largely on the tax credits system. However, as part of welfare reform, the Budget in June 2010

announced a number of changes in relation to Child and Working Tax Credit eligibility and rates.¹

- Breaking the low-paid situation is difficult. Between 2002 and 2005, 40 per cent of low-paid workers remained low-paid, and when people did transition into the medium pay bracket, their income tended to put them in the lower part of that bracket.

3. Statistical evidence on in-work poverty in the East Midlands

Chapter 3 provides an analysis of the scale and distribution of low-paid workers in the region, and the level of in-work poverty and includes:

- definitional and contextual issues building on the discussion in Chapter 2;
- analysis of low-paid work in the East Midlands;
- estimates of income at micro area level;
- the extent of in-work poverty in the East Midlands; and
- information on receipt of selected in-work benefits (tax credits) in the East Midlands.

Key points are:

- Across different definitions, the incidence of low-paid employment in the East Midlands is higher than that observed across the UK as a whole.
- Approximately a quarter of individuals working within the East Midlands were employed in low-paid occupations in 2009.
- In the region just over 30 per cent of employees worked in low-paid sectors in 2008.
- The incidence of employment within low-paid occupations and sectors in the East Midlands was largely the same in 2001 and in 2008.
- Approximately 14-18 per cent of those in work in the region in 2008/09 had hourly earnings that are less than 60 per cent of median hourly earnings.
- Across different definitions of low-paid employment, the incidence of employment within low-paid jobs is higher among women, the young, non-white people and among those not born in the UK.
- Lincolnshire exhibits the highest incidence of low-paid work, both in terms of the location of workplaces and people's homes.
- Based on Households Below Average Income (HBAI) data, in the East Midlands in 2007/08 10.5 per cent of individuals living in working families lived below the poverty threshold before housing costs, compared to the UK average of just over 9 per cent.

¹ Budget 2010: Press Notices, http://www.hm-treasury.gov.uk/d/junebudget_press_notices_complete.pdf

- In the East Midlands in 2007/08 the proportion of people living in working families but below the poverty threshold was just under 14 per cent after housing costs, compared to the UK average of just over 14 per cent.
- The level of in-work poverty in the East Midlands has increased since 2004/05, from 11 per cent to 14 per cent (after housing costs).
- Compared with the other regions of the UK the East Midlands is 6th in terms of the incidence of in-work poverty before housing costs; on the after housing costs measure the ranking of the East Midlands declines to 8th, reflecting the relatively cheap costs of accommodation within the region.
- The average weekly household net income estimates (equivalised after housing costs) for households for 2007/08 show that income estimates are lowest in the coalfield area, East Lincolnshire and the main cities.
- City areas are characterised by the relatively high incidence of people in low-paid work who live in these areas; but the incidence of low-paid work located in these areas is relatively small.
- In-work poverty is increasingly prevalent in families within the East Midlands that: are headed by women, young people, a non-white person, or a lone parent; contain couples where only one person works, whether it be full-time but particularly part-time; and have higher numbers of dependent children.
- Young people, women, ethnic minorities and migrants are disproportionately concentrated in low-paid work – in this regard the East Midlands is similar to the rest of the UK (excluding London where the profile of low-paid work is distinctive).
- The retail, hospitality and social care sectors account for the largest proportions of low-paid employment within the East Midlands (sectors which it should be noted are projected to grow in terms of employment), although the proportion of low-paid work accounted for by food processing is larger than that observed within the UK as a whole.

4. Discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium'

Chapter 4 presents findings from the discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium', and includes:

- wage-setting mechanisms and skills development;
- UK employment and training systems;
- the regional low-skill equilibrium; and
- policies to tackle in-work poverty in the UK.

Key points are:

- There is an increasingly large body of research which suggests that national systems which protect the wage levels of the less skilled through the provision of training have been beneficial in safeguarding relatively well paid work for a substantial part of the labour market who might otherwise be locked into an individual level, low-skill equilibrium.

- At a regional level, if a low-skill equilibrium develops then not only will it push down wages but it will also, consequently, drive down regional consumption levels; regional domestic demand will fall because employers engaged in low-skill, low value work will have a limited demand for high value intermediate products which might be sourced locally, and employees will have relatively low disposable income to spend on a range of locally produced products and services.
- In 2007, the East Midlands was ranked 5th of the nine English regions in terms of the proportion of its working age population qualified to Level 4 or above.
- Although there has been a great deal of up-skilling in the region, demand for these qualifications has not met supply. Therefore, the lack of demand for high level jobs represents a particular challenge.
- Projections suggest that the sectoral and occupational structures of the East Midlands will not change significantly over the medium-term – there is expected to be a continuing demand for labour in low-paid sectors.
- Some aspects of the ‘high-road’ model of economic development offer useful considerations. These are based on competitive advantage being gained through innovation, enhanced quality of products and services, and up-skilling, with training and continuous workforce development as integral elements.

5. Conclusions and policy considerations for the East Midlands

Chapter 5 examines policy considerations for the East Midlands, arising from findings in the preceding chapters, and includes:

- a recap of key findings; and
- discussion of key policy considerations.

Key points are:

- There are six key policy considerations for the East Midlands:
 - ◆ skills;
 - ◆ innovation;
 - ◆ priority sectors;
 - ◆ pathways for advancement within low pay sectors;
 - ◆ working with individual employers and/or through sectoral/spatial employer networks; and
 - ◆ raising awareness of the issue and consequences of in-work poverty - particularly for certain sub-groups to facilitate economic and social inclusion.
- It is crucial to tackle issues around the low skill base and influence the delivery system in order to promote economically valuable skills and ultimately improve productivity and reduce in-work poverty.
- Greater impact may be obtained by prioritising interventions in certain sectors.

- Low-paid employment in the East Midlands is concentrated in the retail, hospitality, and social care sectors (which are projected to grow in terms of employment) - a key point is seeking to promote career pathways and up-skilling within these sectors.
- Working with individual employers and networks thereof is an important way to encourage positive change.
- With the Government's focus on localism, economic development and well-being, local authorities, business bodies and third sector organisations will have a crucial role in moving forward on what are complex, challenging but critical issues.
- The importance of in-work poverty, and its relationship to socio-economic inequalities, for public bodies is demonstrated through a number of developments. Of particular importance is The Equality Act 2010. The Act creates a new public sector duty related to reducing socio-economic inequalities. Also of relevance are Local Economic Assessments requiring integration of economic, social and environmental issues (including poverty).

1. Introduction

1.1 Overview/background of project and goals

In-work Poverty in the East Midlands was commissioned by *emda* to provide a detailed assessment of the issue of in-work poverty in the East Midlands and its implications for regional economic performance.

The research, and this report, is based on four substantive elements:

- a systematic literature review on in-work poverty;
- an analysis of the scale and distribution of low-paid workers in the region, and the level of in-work poverty;
- a discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium'; and
- conclusions and policy considerations.

1.2 The policy context

Economic development and poverty reduction is a major policy concern at national and local level. Recent policy development includes the 2008 HM Treasury report, *Ending child poverty: everybody's business* and the Child Poverty Bill. From 1997/98 through to 2004/05 the UK saw year-on-year reductions in poverty levels, largely as a result of increases in the minimum wage, but since 2004/05 this has changed and, according to the Joseph Rowntree Foundation (JRF) report *Monitoring Poverty and Social Exclusion 2009*, the number of people in low income households is now as high as it was in 2000, having risen by 1.3 million in the last three years.

Literature confirms that employment is the single most effective means of tackling poverty and social exclusion, but an issue of increasing concern is that of in-work poverty. The 2008 JRF *Monitoring Poverty and Social Exclusion* report noted that the number of low income working families with at least one adult in work had been rising over the preceding five years. The finding in the JRF 2009 report is that in each of the last three years, in-work poverty has accounted for more than half of all child poverty (54 per cent on average over the three years combined) and while the in-work poverty share did touch 50 per cent in both 1979 and 1990, it has never before been above 50 per cent for an extended period.

The Institute for Public Policy Research report, *Working out of poverty: a study of the low-paid and the 'working poor'*, confirms that low pay and in-work poverty can occur together, but often do not. This is because different family types need different amounts of income to achieve a similar standard of living and because an individual wage is only one source of income on which families can draw. Therefore, there is no straightforward relationship between low pay and in-work poverty but having a low wage significantly increases an individual's exposure to poverty.

Issues around low pay, skill levels and productivity were discussed in the Leitch review of UK skills needs. The low skill-low pay nature of much employment in the East Midlands raises the importance of the issue of in-work poverty for the region. However, little is known about the underlying factors and possible consequences of in-work poverty at regional and sub-regional level. In-work poverty may cause long lasting social impacts on life chances and hinder the economic performance of the region.

The importance of in-work poverty, and its relationship to socio-economic inequalities, for public bodies is demonstrated through a number of developments. Of particular importance is The Equality Act 2010. The Act creates a new public sector duty related to reducing socio-economic inequalities. Also of relevance are Local Economic Assessments requiring integration of economic, social and environmental issues (including poverty).

1.3 The East Midlands context

The East Midlands is characterised by a 'low pay-low skill equilibrium'. The region has a relatively high employment rate (greater than the UK average) but this is partly maintained by a significant number of low pay, low skill jobs. Average earnings are relatively low in the region and a relatively large number of people in the region have no formal qualifications. The region also has one of the lowest proportions of its workforce educated to degree level in the UK. The region's industrial and business structure has resulted in a relatively weak demand for skills, with individuals' earnings in the East Midlands being, on average, lower than the UK average. The labour market in the East Midlands is characterised by a low skills equilibrium in which businesses experience demand for low specification and low value-added products resulting in low demand for workforce skills.

Sub-regional differences are also relevant. Both urban and rural areas of the region face challenges. The average employment rate for rural local authorities in the East Midlands is higher than the average for the region as a whole and for urban areas of the region. However, average employment rates do not reveal the local variations that exist in employment, under-employment and unemployment rates in the East Midlands. Earnings also differ by local area.

The East Midlands demonstrates a productivity gap relative to the UK as a whole, but this gap has been narrowing. In 2003, GVA per hour worked in the region was 96.9 per cent of the UK average, an increase from the figure in 1999, but still behind the figures for the most productive regions of the country. GVA per hour worked in the East Midlands was 92.5% of the UK average in 2008. Sectoral variations in productivity are evident for the UK and the East Midlands. In relation to the five drivers of productivity (skills, innovation, enterprise, investment and competition), the East Midlands also has notable differences from the UK average. As already discussed, there are differences in skills between the East Midlands and the UK. The region has a higher proportion of people with no qualifications and lower proportions of those with higher level qualifications. This has serious implications, both direct and indirect, for in-work poverty in the region.

In investigating the links between in-work poverty and the region's low pay-low skill equilibrium there are, therefore, several factors of which to take account. These include productivity, skills, innovation and enterprise, and economic performance, all of which need to be located within the East Midlands context, the structure of its labour force and sectoral dimensions.

The report now presents findings from the literature review on in-work poverty.

2. The literature review on in-work poverty

This chapter presents findings from the review of the literature on in-work poverty.

This chapter includes:

- a general introduction to in-work poverty;
- definitions of in-work poverty;
- measurement of in-work poverty;
- the cycle of in-work poverty; and
- national policies related to in-work poverty.

Key points in this chapter are:

- There is very little direct literature on in-work poverty, although there is an extensive literature on contextual issues around low pay, poverty and inequality.
- In-work poverty can be linked to changes in the labour market; in particular there has been a polarisation between employees who are working in relatively stable, well-paid, skilled jobs on the one hand, and those who are in unstable, low-skilled, low-paid employment.
- There are a range of different definitions of in-work poverty, but a standard definition of in-work poverty that is used in much of the literature is: people who live in households where at least one member is classified as employed and whose household disposable income is below 60 per cent of median income.
- Another way of defining the in-work poor is if a person works in an occupation or sector that is particularly likely to be low-paid.
- Labour market churn and the cycle of in-work/out-of-work poverty is a significant issue, highlighting the importance of sustainable jobs; 40 per cent of Jobseeker's Allowance claimants who move into work return to claiming out of work benefits within six months.
- Labour market churn is particularly common in agriculture, tourism and the retail industry and among those working in elementary trades and plant and storage occupations.
- Research also suggests that cycling between work and unemployment is particularly common amongst people working in low-paid jobs in the service sector. This is more of an issue in some East Midlands sub-regions than others.
- In addition, there are some groups that are particularly likely to experience in-work poverty. Women, lone parents, young people, ethnic minorities, disabled people and people with low or no qualifications are disproportionately likely to experience low pay and poverty.
- National level policies related to in-work poverty focus largely on the tax credits system. However, as part of welfare reform, the Budget in June 2010 announced a number of changes in relation to Child and Working Tax Credit eligibility and rates.

- Breaking the low-paid situation is difficult. Between 2002 and 2005, 40 per cent of low-paid workers remained low-paid, and when people did transition into the medium pay bracket, their income tended to put them in the lower part of that bracket.

2.1 Introduction

This chapter presents findings from the review of the literature on in-work poverty, beginning with an introductory overview.

There is a very extensive literature on contextual issues around low pay, poverty and inequality, but very little direct literature on in-work poverty. Interest in in-work poverty and the working poor has been a relatively recent phenomenon in the UK. The concept of the 'working poor' can be traced back to the USA in the 1970s, but it transitioned to Europe relatively late. In contrast to the USA, which has historically had a greater reliance on low-paid, low-skilled employment, policy in most European countries has favoured better quality jobs and higher levels of social protection. The assumption of this policy regime was that having a job would inevitably protect someone from the risk of poverty (Eurofound, 2007). Indeed, in the UK the post-war welfare state and employment policy was based on the notion of the 'male breadwinner model' in which engagement in paid employment by men was sufficient for a household to avoid poverty. The 'rediscovery' of poverty in the 1960s (e.g. see Abel-Smith and Townsend, 1965) focused primarily on those who were not in employment and this emphasis has been dominant until very recently. Kenway (2008, p 8) finds that the earliest reference to 'in-work poverty' in academic and policy literature in the UK comes in 2000 with the Government's *Opportunity For All* report and that interest in the subject did not really take off until Harker's work on child poverty in 2006.

2.1.1 *The impact of transformations in the global economy on employment*

In-work poverty can be linked to changes in the labour market. There has been a great deal of both theoretical and applied work on transformations in the global economy and their impact on labour supply and demand. Labour markets have become increasingly segmented. In particular there has been a tendency towards a "hollowing out of the middle", that is a polarisation between employees who are working in relatively stable, well-paid, skilled jobs on the one hand, and those who are in unstable, low-skilled, low-paid employment on the other, with little movement between the two groups (Working Futures, 2007). Eurofound (2008) found that, in contrast to several other European countries, in the UK job growth has been concentrated in either high or low pay sectors, rather than in intermediate occupations, which makes labour market polarisation a growing concern in the UK.

The employment rate in the East Midlands is higher than the national average, but compared to the UK as a whole, a relatively smaller proportion of the East Midlands population is employed in higher level jobs (39.5 percent compared to a national average of 42.7 percent), while a higher proportion of the East Midlands population is employed in lower tier occupations (22.1 per cent compared to 18.6 per cent). It is projected that the proportion of the East Midlands population working in high skilled jobs will fall further behind the UK average, despite a general growth in this type of employment (*emda*, 2009, p 272 - Updated as 'The East Midlands in 2010').

2.1.2 Earning inequalities

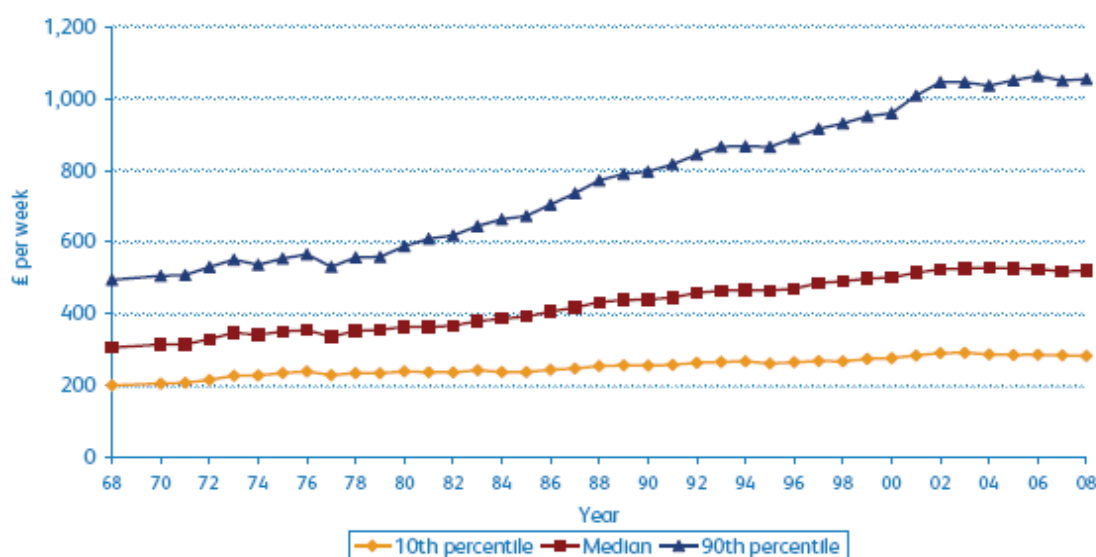
The earnings inequality that results from the ‘hollowing out of the middle’ is of key importance when looking at in-work poverty, as it is the second group, those who are in low-paid, low-skilled employment who are most at risk of in-work poverty, and it appears that this group is growing in size.

Although overall there has been some slowing in the growth of earnings inequality since 1990, the wage differential in the UK has increased faster than in many comparable countries.

Looking at wage inequality at the national level, Hills et al (2010) found that in 2007-8 the hourly wages of the top 10 per cent were almost four times more than the lowest 10 per cent. The discrepancy was even greater when considering weekly earnings, with the highest 10 per cent of earners being paid almost eight times the lowest 10 per cent of earners. This figure includes those working both full-time and part-time.

When looking only at those employed full-time, the highest 10 per cent earned 3.7 times more than the lowest 10 per cent. Figure 2.1, taken from Hills et al (2010, p 28, Fig 2.6a) shows how the gap between the highest and lowest earning groups among men has grown over time. The picture for women is similar, although the overall figures are smaller, as is the gap between the highest and lowest earners.

Figure 2.1: Male full-time weekly earnings 1968-2008



Source: Hills et al, (2010, p 28, Figure 2.6a) - using data from 1968-1996 New Earnings Survey (NES) (GB), 1997-2008 ASHE (UK), 2008 prices).

In the East Midlands, the earnings differential is smaller than the UK average (*emda*, 2009 - Updated as ‘The East Midlands in 2010’). This is largely because in the East Midlands there are lower levels of employment in those high-skilled occupations that tend to experience very high levels of pay and the average earnings of higher level occupations is somewhat lower in the East Midlands than in the UK as a whole – the statistical analysis in Chapter 3 provides more detailed analysis of the East Midlands.

2.1.3 Low-paid, low-skilled employment

Gregory (2000, p 16) describes the types of employment that have become features of the current phase, noting that although there has been a growth in well-paid jobs, requiring high, often specialised skills in areas such as IT, the fastest employment growth has been in 'atypical' work, in particular jobs that are part-time, limited term or outside conventional employment contracts.

Metcalf and Dhudwar (2010), using data from the 2007 Labour Force Survey, found that one third of temporary jobs were low-paid, with those doing seasonal and casual work being particularly at risk of experiencing low pay. Sixty five per cent of workers doing seasonal work were low-paid, as were 56 per cent of those doing casual work. These types of jobs, which are often in the rapidly expanding service sector, offer the flexibility required by many employers but are also seen to offer little security or continuity. This has resulted in both an increase in income inequality, as mentioned above, which has been linked to a rise in social exclusion, plus a cycling between employment and unemployment as contracts end or wages are found to be too low to make working worthwhile. This point will be returned to below, in Section 2.4.

An issue identified by Hills et al (2010) is that some groups are particularly affected by these developments. While some income inequality is inevitable due to differences in characteristics like work experience, qualifications and age, Hills et al find that there are systematic differences between groups, for example between genders and different ethnic and religious groups, that appear to be unrelated to these characteristics.

In addition to transformations in the labour market, changes in household structure are relevant to in-work poverty. For example, the growing number of single parent households has resulted in an increase in the proportion of households that can be classified as being at risk of poverty, despite having one or more members in employment.

2.1.4 The extent of in-work poverty

Section 3 of this report provides a detailed analysis of in-work poverty in the East Midlands, but by way of an introductory overview Bardone and Guio (2005, p 1) estimate that around 7 per cent (or around 14 million people) of the employed population of the EU25 now live in households whose equivalised income is below what they consider to be the national poverty line. For the UK, Cooke and Lawton (2008, p 7) found that in 2004/05, the risk of being in poverty was 18 times higher for low-paid than non-low-paid working adults, and that at the minimum wage, a single earner in a couple family with two children would need to work almost 80 hours a week to avoid poverty through wages alone. There has been an increasing focus on in-work poverty as measures of child poverty indicate that although the number of children who are in poverty in workless households has fallen, the number of children who are in poverty who are in households that are classified as working has not. Low wages and part-time or short-term employment have been identified as particular issues for the working poor (Kenway, 2008, p 4).

The above has provided a general introduction to the issue of in-work poverty. More detailed consideration is now given to specific points, beginning with defining in-work poverty.

2.2 Definitions of in-work poverty

There are a range of different definitions of in-work poverty. 'Poverty' itself can be defined in different ways, for example using relative or absolute measures, minimum income standards and so on – by way of background, these are discussed in Annex 1. The key focus here, however, is specifically on defining in-work poverty.

Table 2.1, taken from Peña-Casas and Latta (2004, p 7) shows how different definitions of in-work and poverty are used in different countries in attempts to define the working poor.

Table 2.1: Definitions of the working poor

Table 1 Definitions of the working poor in literature

Country	Source	Work definition	Poverty threshold
EU	Eurostat	- employed at least 15 hours (Marlier, 2000) - most frequent activity status in the last year	Low-income threshold: less than 60% of the median equivalised household income (Relative monetary poverty)
France	- Institut National de la Statistique et de l'Économie (INSEE) - Academics - National Action Plan for Social Inclusion 2001-2003/2003-2005	- individuals who have spent at least six months of the year on the labour market (working or searching a job) - working at least six months - have had a job for at least one month during a year	Low-income threshold: less than 50% (60%-70% occasionally) of the median equivalised household income (Relative monetary poverty)
Belgium	National Action Plan for Social Inclusion 2001-2003/2003-2005	- individuals who have spent at least six months of the year on the labour market (working or searching for a job) - working at least six months	Low-income threshold: less than 60% of the median equivalised household income (Relative monetary poverty)
Switzerland	- Swiss Federal Statistical Office - Academics	- all 'active' individuals, regardless of the number of hours they work; or - all individuals working full-time (i.e. 36 hours or more weekly); or - at least one individual having a lucrative activity for at least 40 hours a week (one full-time job).	Administrative flat rates of social security modified. ¹ (Monetary administrative poverty)
US	US Census Bureau	Total hours worked by family members greater than or equal to 1,750 hours (44 weeks)	Federal poverty line (FPL) (Absolute monetary poverty)
	US Bureau of Labour Statistics	- individuals who have spent at least six months (27 weeks) of the year on the labour market (working or searching for a job)	
	US researchers in general	- adults working, on average, at least half time (approximately 1,000 hours) - or definition of USCB and USBS (see above)	Less than 125%-150%-200% of FPL ² (Absolute monetary poverty)
Canada	National Council of Welfare (NCW)	More than 50% of total family income comes from wages, salaries or self-employment	Statistics Canada's Low-income cut-offs (LICOs) (Absolute monetary poverty)
	Canadian Council on Social Development (CCSD)	Adult members have, between them, at least 49 weeks of either full-time (at least 30 hours a week) or part-time work	CCSD relative low-income threshold (Relative monetary poverty)
	Canadian Policy Research Networks (CPRN)	Full-time/Full year	Relative low-income threshold: less than \$20,000 per year (Relative monetary poverty)
Australia	Social Policy Research Centre	All 'active' individuals, regardless of the number of hours they work	Henderson absolute poverty line ³ (Absolute monetary poverty)

¹ The threshold is calculated by adding the cost of a 'moderate' rent and that of a basic health insurance premium to the Confédération Suisse des Institutions d'Action Sociale's 'vital' minimum.

² The use of alternative poverty thresholds expresses the general perception of US researchers that the federal poverty line is too low to assess poverty to its full extent (Warren C. R., 2002; Employment Policies Institute, 2002).

³ The Henderson poverty line was developed by Professor R. F. Henderson in the 1970s while undertaking the Australian government commission into poverty. His widely used formula calculates the amount of money which individuals and families of different sizes need to cover basic living costs.

Source: Peña-Casas and Latta, (2004, p 7).

2.2.1 *Standard definition*

There is a fairly standard definition of in-work poverty that is used in much of the literature. In this definition, the in-work poor are: those people who live in households where at least one member is classified as employed according to their most frequent activity status (the status an individual declares they have occupied for more than half of the preceding year) and whose household equivalised disposable income is below 60 per cent of national median equivalised income.

This measure is used by Cooke and Lawton (2008), Gutiérrez Palacios, Guillén Rodríguez and Peña-Casas (2009), Bardone and Guio (2005), Millar et al (1997), Millar and Gardiner (2004).

In using this definition, there are two key issues:

- the need to reconcile employment status and wages, which are usually measured at the individual level, with poverty, which is usually measured at the level of the household, to produce a measure of in-work poverty; and
- there are questions about the time period over which measurements should be taken. This is partly a methodological issue, and is addressed in more detail in Section 2.3, because in-work poverty is most commonly measured through a combination of indicators which are not always measured over the same time period, for example, income can be measured per annum or per hour depending on the data sources used, while employment status is usually measured at a single point in time or over a whole year, so data must be converted so they refer to the same time-period. In addition to these methodological issues, there are questions raised about what is the most appropriate time-frame to use when many of the people being studied will, due to the nature of their work and their precarious attachment to the labour market, move in and out of employment over relatively short time periods (Ormerod and Ritchie, 2007). This is discussed further in Section 2.4.

2.2.2 *The household as the unit of measurement*

The measurement of in-work poverty at the level of the household accounts for the fact that someone can, as an individual, be a low-wage earner, but they will not necessarily be in poverty, because the earnings of others in their household lift them above a pre-determined poverty threshold, or because they work long hours, have several jobs, or receive state transfers through the tax and benefits system. Conversely, someone may be earning a wage that is not considered to be low, but because of their household context they are considered to be in poverty (see Cooke and Lawton, 2008; Gardiner and Millar, 2006; Bardonne and Guio, 2005; Bennett and Millar, 2004; Gregory, 2000; Danziger and Gottschalk, 1986). Gardiner and Millar (2006, pp 353-4) found that the vast majority of low-paid people (86 per cent), did not live in poor households.

An additional complexity in defining and measuring in-work poverty is the different employment statuses that may be occupied by various members of the household. Households may include various combinations of adults working full-time, part-time or not at all, those who are employees and those who are self-employed, as well as those who move between employment and unemployment at different points (Kenway, 2008, p 16). It is also possible to distinguish between those who are 'economically inactive', that is they are not looking for work, and 'unemployed' people who are looking for work (MacInnes and Kenway, 2009).

To illustrate this, Gardiner and Millar (2006) and Millar et al (1997) divide household income into various separate components and then add these together one at a time to calculate the point that a household rises above the poverty line. In doing this, they demonstrate that there are a significant proportion of cases where personal income alone is not enough for someone to rise above poverty, but that the addition of other elements of household income is enough for them to do so. The order in which they add the different components of household income is: own market income, followed by market income of a partner, non-means-tested social security benefits, tax credits, means-tested social security benefits, the market incomes of other household members, and finally other household income (Gardiner and Millar, 2006, pp 353-4). Similarly, Cooke and Lawton (2008, p 44) found that the wages of other people in their household was the most significant factor in lifting low-paid people out of poverty, with benefits and tax credits playing a secondary role.

Measurements of in-work poverty at the level of the household are based on the assumption that there is income-sharing within the whole household, not just within the family unit, and that income is shared equally between all household members. In a working-poor household, all members are counted as poor. This, as Gardiner and Millar (2006, p 355) point out, can hide poverty within households, because household financial allocation and management systems reflect differences in characteristics and circumstances, including income, employment status, age and life-course position. Poverty of women in such households is a particular issue, as they are more likely than men to be low-paid workers, in part due to the sectoral and occupational concentration of their employment.

2.2.3 The treatment of housing costs

There is debate as to whether poverty related definitions should be before or after housing costs – on the basis that housing costs are something a household often has little control over. Gardiner and Millar (2006) and DWP (2002) in its work on HBAI both note that their poverty figures are before housing costs, which is the more common indicator, but there have also been attempts to look at poverty after housing costs to distinguish those who are in poverty only because their housing costs are high. Kenway (2008, pp 16-17) finds that only two thirds of children who are defined as being in in-work poverty based on income after housing costs are also defined as such based on income before housing costs. However, he also finds that almost all of the other third of children are in households with below average income before housing costs, and half are only just above the before housing costs poverty line (see The Bevan Foundation and New Policy Institute, 2006 for a fuller discussion on the impact of housing costs).

2.2.4 Low-paid jobs

An alternative way of identifying the in-work poor has been proposed by Stewart (1999), and built upon by Jones and Dickerson (2007) amongst others. It is that a person is a member of the working poor if they work in an occupation that is particularly likely to be low-paid.

It is possible to identify people who are in low paying industries, low paying sectors or low paying occupations (see the 2009 Low Pay Commission report, p 318, and further discussion in Chapter 3 of this report).

Low paying industry: Those industries that employ a large number of minimum wage workers or those in which a high proportion of jobs are paid at the minimum wage. The low paying industries are: retail, hospitality, leisure, travel and sport, social care,

food processing, agriculture, hairdressing, cleaning, security, and textiles and clothing.

Low paying sector: Those industries or occupational sectors that employ a large number of minimum wage workers or those in which a high proportion of jobs are paid at the minimum wage. The low paying occupational sectors are: retail, hospitality, leisure, travel and sport, social care, food processing, agriculture, hairdressing, cleaning, security, textiles and clothing, childcare, and office work. For example, retail consists of shelf stackers, trolley collectors, till assistants and other lower-skilled retail jobs.

Low paying occupation: Stewart (1999) identifies twelve jobs that are particularly likely to be low-paid, and concentrates investigations on workers in these jobs. The jobs identified are: care assistants, sales assistants, cleaners and domestics, kitchen and catering assistants, retail cashiers and check-out operators, hairdressers and barbers, bar staff, childcare, workers, shelf fillers, launderers, dry cleaners and pressers, sewing machinists, waiters and waitresses, security guards, animal care occupations, and hotel porters.

Similarly, Jones and Dickerson (2007) rank jobs from 'high' to 'low' depending upon their median pay. The ten jobs they list as being the ten lowest paid occupations are: market and street traders and assistants, waiters and waitresses, hairdressers and barbers, bar staff, leisure and theme part attendants, kitchen and catering assistants, launderers, dry cleaners and pressers, retail cashiers and checkout operators, sales and retail assistants, and cleaners and domestics (Jones and Dickerson, 2007, p 13). From these studies, it is possible to establish a list of jobs that are most likely to be low-paid, and to classify all workers in these jobs as being members of the working poor.

See Annex 2 for the list of sectors and occupations.

2.2.5 *Receipt of tax credits*

Being in receipt of certain tax credits, particularly the Working Tax Credit (WTC), can be indicative of someone earning a very low-wage. The WTC is designed to ensure that those who earn low-wages do not fall into poverty. Receipt of tax-credits can therefore be used as a proxy measure for those people who are at risk of in-work poverty, and who would be classified as being in poverty in the absence of policy interventions. However, as part of welfare reform, the Budget in June 2010 announced a number of changes in relation to Child and Working Tax Credit eligibility and rates². Latest data on tax credits are discussed in more detail in Section 2.5.1.

2.3 **Measuring in-work poverty**

Many of the issues related to the measurement of in-work poverty have been discussed above, as the measures employed are inevitably related to the definitions of in-work poverty used. In this section, we give examples of how different definitions have resulted in different measurements, and the findings from these different approaches.

² Budget 2010: Press Notices, http://www.hm-treasury.gov.uk/d/junebudget_press_notices_complete.pdf

2.3.1 The 60 per cent of national median equivalised income approach

As was mentioned above, this is the most commonly used approach to measuring in-work poverty.

An example of the use of this method to measure in-work poverty is found in the IPPR study by Cooke and Lawton (2008). They use the 60 per cent of full-time median hourly pay, excluding over-time, alluded to above. They use a percentage of the median, rather than a fixed proportion measure, such as the lowest 10 per cent of earners, as this give context to the reality of what being low-paid means in society. Additionally, it provides scope for the number and proportion of low-paid people to rise over-time, which gives a greater understanding of the extent of the issue at different points in time, and prevents a skewing of the data by people with extremely high or low earnings. The 60 per cent figure is chosen because it is the most commonly used point at which to set the poverty line.

Using this definition, Cooke and Lawton (p 11) examine the April 2006 figures from the Annual Survey of Hours and Earnings (ASHE) data set, and find that the minimum wage for adults aged over 22, which was £5.05 (equivalent to £9,191 per year for a full-time worker) in April 2006, is below the figure they have set for low-income using the above criteria. They find that in April 2006, the median gross pay, excluding overtime, for all employees was £9.88 per hour (£11.19 for men and £8.69 for women), and median full-time pay, excluding overtime, was £11.12 an hour, giving a low pay level of £6.67.

To establish the extent of in-work poverty at the level of the household, using the Department for Work and Pensions Family Resources Survey (FRS), they breakdown all sources of household income for individual workers and add them cumulatively to establish at what point, if any, a person moves out of poverty, as discussed above. The FRS does not include data on housing expenditure, so all figures used by Cooke and Lawton are before housing costs, although they recognise that variable housing costs are a serious issue, and cite the study by Kenway and Winkler (2006), which found that some low-paid people avoid poverty by having very low housing costs, while some higher paid people may find themselves in poverty due to their very high housing costs.

We will use this approach in Chapter 3 to examine the extent of in-work poverty in the East Midlands.

2.3.2 The low-paid sectors and occupations approach

The low paying occupations and sectors approach developed by Stewart (1999) and Jones and Dickerson (2007) will also be used in Chapter 3 to look at in-work poverty in the East Midlands.

The key measurement issue in using this approach concerns the identification of the sectors or occupations that can be considered to be low-paid, and the extent to which the occupations and sectors that are low-paid will change over time.

See section 2.2.4 and Annex 2 for the list of low-paid occupations and sectors.

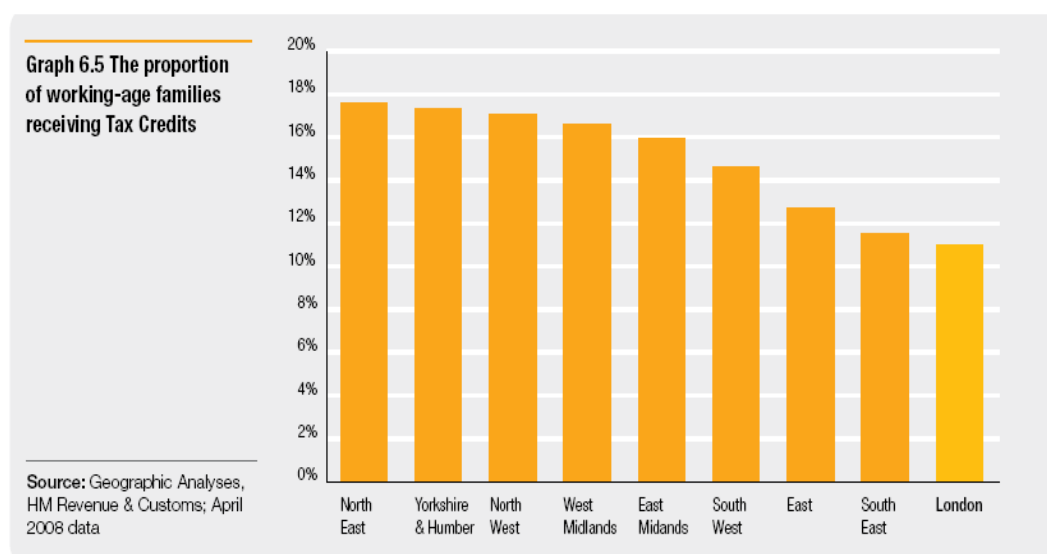
2.3.3 Receipt of tax-credits

Receipt of tax credits can, with a number of caveats, be used as an indicator of low income amongst working families. The system of entitlements is complex.

Additionally, McQuaid, Fuertes and Richard (2010) note that WTC is calculated using the previous year's tax income, which means that people may be significantly better off in the first year they enter work than they are in subsequent years as their entitlement to WTC is decreased. This may increase the propensity of people to cycle between being in- and out-of work, between being in in-work poverty and escaping from it.

MacInnes and Kenway (2009) have used this approach to compare different English regions, as shown in Figure 2.2. They note that there are several shortcomings to using this approach related to availability of data and level of analysis. Their data on households is taken from the 2001 Census, which is inevitably out-of-date, and their analysis is at the level of the household, while it is families that receive tax credits, and households can contain more than one family. Additionally, the data include only those who have taken up tax credits, and it is known that there is under-claiming in this area. It also does not take account of the actual level of entitlement, in other words, it does not differentiate between different levels of low-income. Nonetheless, the findings of MacInnes and Kenway give an indication of where the East Midlands stands in relation to other regions. (See Section 3.13 for further details relating to receipt of tax credits at a sub-regional level within the East Midlands.)

Figure 2.2: The proportion of working-age families receiving tax credits by region, 2008



Source: MacInnes and Kenway (2009, p 57).

2.3.4 The Minimum Income Standard approach

This approach uses social consensus to establish the minimum income that is necessary to achieve a minimum acceptable standard of living. The approach was developed by Bradshaw et al (2008) and has been updated by Hirsch, Davies and Smith (2009).

Bradshaw et al (2008) found that the income people thought was needed was slightly above the 60 per cent of the median income that has been conventionally used. When Hirsch, Davies and Smith (2009) updated the MIS for 2009, based on inflation, they found that the MIS has risen on average by around 5 per cent, largely due to increases in the cost of food, domestic fuel and public transport. In April 2009, the MIS was at approximately 77 per cent of the median income after housing costs

(excluding pensioner couples). The exact income required by different household types is updated each year. Table 2.2 shows the MIS in April 2008 and April 2009 and the hourly pay required after benefits by one earner to achieve the MIS.

Table 2.2: Minimum Income Standard in April 2008 and April 2009, Great Britain

	Weekly MIS including rent and Council Tax (hourly pay based on a 37.5 hour working week) in April 2008	Weekly MIS including rent and Council Tax (hourly pay based on a 37.5 hour working week) in April 2009
Single working age adult	£210 (£6.88)	£220.33 (£7.09)
Couple with 2 children, no childcare	£439 (£13.76)	£460.13 (£14.13)
Lone parent with 1 child*	£301 (£6.13)	£426.59 (£6.20)
Lone parent with 1 child, no childcare	£274 (£5.52)	n/a

*The lone parent with childcare costs is assumed to be receiving Childcare Tax Credit and therefore paying 20 per cent of the gross childcare cost.

Source: Adapted from Bradshaw et al (2008, p 37, Table 9) and Hirsch, Davies and Smith, (2009, p 25, Table 5).

The National Minimum Wage rose by only 4 per cent (to £5.73) between April 2008 and April 2009, meaning that not only were all groups except lone parents who were not paying for childcare unable to meet the MIS based on working full-time for the minimum wage, but that the gap between the minimum wage and the wage required to meet the MIS widened.

The Greater London Assembly and London Citizens have also used similar means to establish the London living wage. They calculate a 'poverty threshold wage' and then add 15 per cent to this hourly rate to ensure a 'decent standard of living'. They also include access to other benefits, including eligibility for annual leave and sick leave. In 2008, the living wage was set at £7.45, based on a 'poverty threshold wage' of £6.50 in 2006. The GLA insists that any company contracting for work with it must guarantee their employees this living wage, a position that has been taken up by various other organisations in London.

Similar work has also been undertaken by the Family Budget Unit (2004), Morris and Deeming (2004) and Morris et al (2000), and Middleton (2000) (see Deeming (2005) for a comparison of the latter three methods).

2.3.5 *Measuring work-status*

As was mentioned above, the cycling between employment and unemployment that often occurs amongst people who have been in low-paid employment, means that the time-frame over which work-status is measured is a key concern.

There are two main approaches to determining whether someone is in-work, and hence in in-work poverty: those taking a snap-shot, which looks at employment status at a particular point in time; and those that take a most frequent activity approach, which looks at the most common activity undertaken over the course of a pre-defined time period.

2.3.6 *Snap-shot approach*

This measures the activity of an individual at a particular point in time, usually in the weeks leading up to the survey period. A person is therefore classified as being 'in-work' if they were working at the time of the survey.

There can be problems relating this to concept of poverty, because the income by which poverty is measured is usually a yearly income, and includes all household members. Consequently, significant differences in individual trajectories may be hidden, for example, in cases where individuals move in and out of employment, and may classify someone as in-work when this may be a small period in relation to long periods of unemployment, which will have a significant impact on their capacity to build up sufficient income to live out of poverty. Additionally, these snap-shot approaches rarely take account of the 'depth' of low income, in other words, how far below the low income an individual or household falls (see DWP, 2002, p 15).

Speaking specifically about the measurement of in-work poverty, Gutiérrez Palacios, Guillén Rodríguez and Peña-Casas (2009, p 15) criticise the snap-shot approach as not being refined enough to account for differences in individuals' employment trajectories over their life-course. They note that the snapshot approach captures people at very different stages of their working lives, and puts together people who are temporarily in low-paid, working poverty situations but who can be expected to experience high mobility in earnings, with people who are in persistent working poverty situations and who require different policies to enable them to improve their situation.

Baronne and Guio (2005) conduct separate analyses of those who are self-employed because the challenges they face as a result of the precarious, and often variable, nature of their income means that they face different challenges to rising out of poverty, and hence require different policy interventions.

2.3.7 Most frequent activity approach

The Most Frequent Activity Status (MFAS) is used by Eurostat in the European Community Household Panel (ECHP). It uses the main activity status for the previous full year before the survey for all members of the household (see Eurostat, 2007). Under this definition, a person is 'in-work' if this was their most frequent activity in the preceding full-year. Usually, this means that they were in employment for at least 7 months of the year.

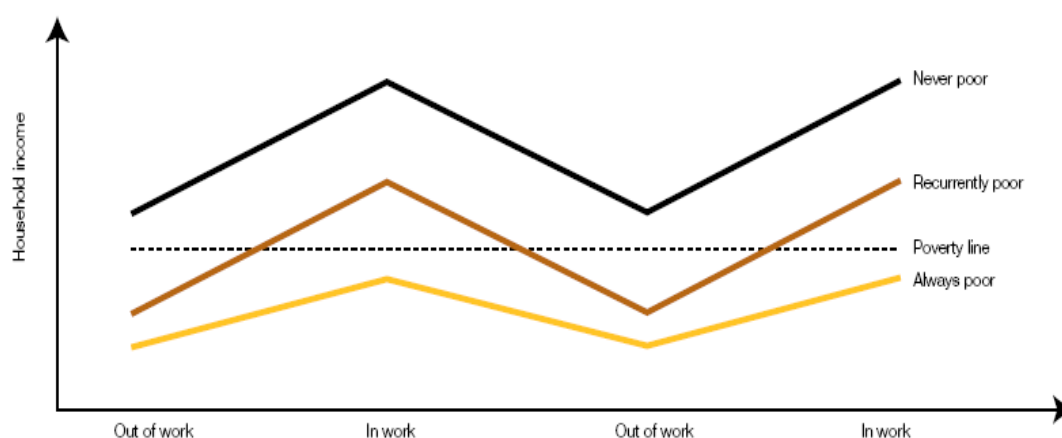
2.3.8 Work intensity

Bardone and Guio (2005, p 6) include a measure of work intensity. This is defined as the overall degree of work attachment of working-age members in a household and is calculated by dividing the sum of all the months actually worked by the working age members of the household by the sum of the workable months in the household to establish the number of months spent in any activity status by working-age members of the household. DWP (2002, p 10) also stress the importance of being able to establish the work intensity of an individual in cases where they have moved into and out of employment or between periods of low and higher paid work. They find that the length of time spent on low income is important, with those suffering longer spells finding it more difficult to move out of low income and being more likely to suffer adverse outcomes. Most people having low income could expect to suffer relatively short spells, but a significant minority remain in low income for longer spells. Movements in and out of low income are associated with key trigger events, such as entering or leaving the labour market, the birth of a child or relationship breakdown.

2.4 The cycle of in-work poverty

Labour market churn and the cycle of in-work/out-of-work poverty is a significant issue, highlighting the importance of sustainable jobs. There is relatively little research on labour market churn and the cycle of in-work/out-of-work poverty. In part, this lack of research can be attributed to analyses that have used a snapshot approach, i.e. that look at poverty at a particular point in time, rather than employing a more dynamic, longitudinal approach. However, there has been an increased policy emphasis on the sustainability of employment emphasising both job retention and progression, in contrast to earlier policies which tended to focus on the benefits associated with employment generally, and which suggested that ‘any job will do’. Goulden (2010) notes that the recession has made labour market churn a particularly relevant issue. Labour market churn refers to the movements of individuals between and within economic positions and labour market states, i.e. being in and out of work. Figure 2.3, taken from Goulden (2010, p 3) shows how cycling between being in work and out of work relates to movements into and out of poverty. It suggests that there is a group that is always poor, irrespective of their employment status, and a group who are never poor, irrespective of their employment status, but employment status is a key factor for those who are recurrently poor. This has important implications for policy makers, which will be returned to below.

Figure 2.3: *Cycling between employment and non-employment and relationship to poverty in Great Britain*



Source: Goulden (2010, p 3).

Tomlinson and Walker (2010, p 11, Table 3.1) examine the trends in the proportion of working-age individuals who have experienced income poverty, using the British Households Panel Survey to look at data from 1991 to 2005.

Table 2.3: *Proportion of working-age individuals who have experienced income poverty in Great Britain*

	1991-1995 (%)	1996-2000 (%)	2001-2005 (%)
Never poor	66.8	66.9	68.8
1 short spell of income poverty	11.3	11.4	12.9
1 long spell of income poverty	10.1	9.8	8.7
Recurrent income poverty	7.0	5.0	6.5
Chronic income poverty	4.9	4.8	3.1

Weighted by the longitudinal weights for the final year in the sequence and only include working-age individuals (i.e. those aged 18–59 in the first year of the window).

Source: Tomlinson and Walker (2010, p 11, Figure 3.1).

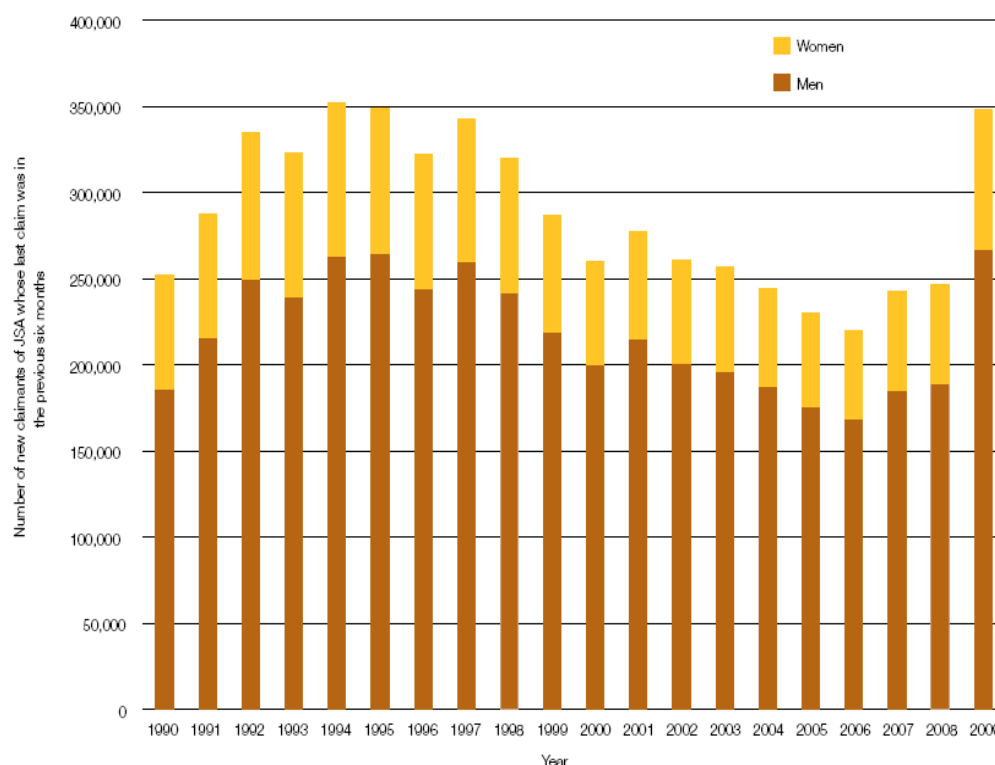
Those who are amongst the lowest paid are also amongst the most vulnerable to moving between employment and unemployment over relatively short periods. Ray et al (2010) found that people who had experienced unemployment were more likely to be in unstable, low-paid work once they had found a job. Gregory (2000, pp 169-70) found that when someone moved out of low pay, this is more likely to be because they have moved out of employment altogether, rather than because they have moved into a higher paid job. Lawton (2009a and 2009b) found that 76 per cent of workers who were low-paid in 2000 were still in employment in 2005, compared to 83 per cent of higher-paid workers. They were twice as likely to become unemployed and three times as likely to become inactive.

However, McQuaid, Fuertes and Richard (2010) and Ray et al (2010) suggest that there are particular household events that lead people into poverty or worsen the poverty they are already in, notably the birth of a child and associated reductions in working hours or in one partner leaving work, and relationship breakdown which results in the loss of income from the main earner in the relationship.

2.4.1 *Cycling between benefits and employment*

Kenway (2008) found that almost half of the men and a third of the women making a new claim for Jobseeker's Allowance had last claimed that benefit less than six months previously. Harker (2006, p 40) notes that almost 70 per cent of Jobseeker's Allowance claims are repeat claims, with 40 per cent of claimants who move into work returning to benefit within six months. Figure 2.4 shows the change over time of the numbers of men and women making a new claim for Jobseeker's Allowance who were last claiming this benefit less than six months previously.

Figure 2.4: *Numbers of men and women making a new claim for Jobseeker's allowance who were last claiming the benefit less than six months previously (1990 -2009) in Great Britain*



Source: Goulden (2010, p 6, using data for the first quarter of each year from poverty.org.uk).

Ray et al (2010) find that when people have moved into and out of poverty, in other words, they have crossed the poverty line, their changes in income are often very small. People rarely moved from being in poverty to moving far above the poverty-line, and they were susceptible to slipping back below the poverty line relatively quickly. They therefore question whether such movements should really be considered moves out of poverty at all.

In considering cycling between being in-work and out of work, there are again different approaches that can be taken, as will now be discussed.

2.4.2 Financial strain

As well as looking at income poverty, Tomlinson and Walker (2010) examine poverty from the perspective of financial strain and material deprivation. The financial strain measure is a subjective measure based on whether people feel that they are only just getting by or worse, while the material deprivation measure looks at whether people have access to certain consumer durables, including televisions and washing machines. The importance of these measures is highlighted by Ray et al (2010) who note that simply finding employment and earning more money may not lead to an individual or household feeling better off, particularly if the movement into work brings additional costs, such as the need to run a car or pay for childcare, and that existing debt incurred during a period of poverty and unemployment remains an issue, as does the delay in applying for and receiving different benefits and tax credits. Therefore movements into and out of work do not map directly onto movements into and out of poverty.

In contrast to the proportions in income poverty which, as Table 2.3 showed, have remained relatively static over time, the proportions who feel themselves to have cycled into and out-of financial strain have decreased over time. However, the proportions who feel themselves to have experienced financial strain (see Table 2.4) are much higher than those who have experienced income poverty.

Table 2.4: Proportion of working-age individuals who have experienced financial strain in Great Britain

	1991-1995 (%)	1996-2000 (%)	2001-2005 (%)
Never experienced financial strain	29.6	39.5	45.7
1 short spell of financial strain	14.4	16.6	16.6
1 long spell of financial strain	20.6	16.7	14.0
Recurrent financial strain	18.2	17.2	15.4
Chronic financial strain	17.2	10.1	8.4

Weighted by the longitudinal weights for the final year in the sequence and only include working-age individuals (i.e. those aged 18–59 in the first year of the window).

Source: Tomlinson and Walker (2010, p 13, Table 3.3).

2.4.3 Material deprivation

The material deprivation measure used by Tomlinson and Walker presents a different picture again. Using this measure, it appears that the proportion of people cycling into and out of poverty has increased, with a particular rise in those experiencing long spells of poverty. They note that this apparent increase of deprivation in relative terms, combined with the known decline of material deprivation in absolute terms suggests that inequality appears to be increasing (p 15) (see Table 2.5).

Table 2.5: *Proportion of working-age individuals who have experienced material deprivation in Great Britain*

	1991-1995 (%)	1996-2000 (%)	2001-2005 (%)
Never experienced material deprivation	65.8	59.2	52.6
1 short spell of material deprivation	12.1	12.7	15.8
1 long spell of material deprivation	9.8	17.3	18.5
Recurrent material deprivation	5.6	4.5	6.9
Chronic material deprivation	6.7	6.3	6.2

Weighted by the longitudinal weights for the final year in the sequence and only include working-age individuals (i.e. those aged 18–59 in the first year of the window).

Source: Tomlinson and Walker (2010, p 15, Table 3.5).

2.4.4 *Reasons for the in-work poverty cycle*

People may cycle into and out of work and poverty for a number of reasons. Some may choose seasonal patterns of work that coincide with school terms, for example, while others will be forced into a low pay/no-pay pattern due to working in a sector of the labour market that is dominated by insecure and low-paid work, for example, labour market churn is particularly common in agriculture, tourism and the retail industry (Evans, Harkness and Ortiz, 2004, Green et al, 2007). Looking at the usual occupation of claimants of Jobseeker's Allowance, Green et al (2007) found that those who had worked in less skilled occupations were the most likely to move between employment and unemployment. They identify those working in elementary trades and plant and storage occupations as being particularly likely to cycle between being in-work and out-of work, as well as those working in administration and retail occupations, notably sales assistants and retail cashiers.

Carpenter (2006) found that involuntary movement into unemployment was much more common than voluntary movement, with most people who had returned to claiming Jobseeker's Allowance after a period of employment stating that they were doing so because they were unable to find permanent employment. Once someone has been out of work, they are more likely to enter work in a low-paid, insecure occupation, putting them at further risk of leaving employment again (Gregory, 2000, pp 169-70). The calculation of the Working Tax Credit (WTC) based on the previous year's income was found by authors such as McQuaid, Fuentes and Richard (2010) to also put people at risk of cycling between in-work and out-of-work poverty. They found that entering low-paid work may be viable for a single year because the WTC for that year is based on the previous year when the individual's income was lower, but that when the calculation was made for the following year, based on the individual having worked the previous year, work in a low-paid job was no longer viable, and the individual was financially better off leaving work and claiming benefits.

This has two implications for the study of in-work poverty. Firstly, although any experience of poverty appears to increase the likelihood of someone being unemployed or in a low-paid job in subsequent periods, being in poverty for a long period of time is likely to be a different experience to being only temporarily in poverty, and those who are in persistent poverty are likely to require different policies to help them to improve their situation. Secondly, if there is a great deal of movement into and out of work, and potentially into and out of poverty, then the number of people who are affected by poverty is higher than those who are in poverty at any one point in time (see Kenway, 2004).

Factors associated with cycling between low pay and no-pay identified by Goulden (2010, p 7) are shown in Table 2.6.

Table 2.6: Factors associated with cycling between low pay and no-pay

Labour market factors	Personal factors	Structural barriers
Local availability	Lack of qualifications	Lack of childcare
Job characteristics	Health problems	Benefit system
Business instability	Housing costs	Costs of being in work
	Debt	Transport
	Personality	Obstacles to education and training
	Work-life balance	
	More severe problems	

Source: Goulden (2010, p7).

2.4.5 Characteristics of those who experience the in-work poverty cycle

Although in-work poverty is primarily an issue that affects couple families, due to their greater numbers, the cycle of low pay/no-pay is particularly important when looking at the work histories of lone parents (Tomlinson and Walker, 2010). Low-paid lone parents are twice as likely to exit work than their counterparts who are not low-paid (Evans, Harkness and Ortiz, 2004, p 64), and Harker (2006, p 40) finds that around one in ten lone parents will leave work in a single year, with between 18 and 20 per cent of those leaving the New Deal for Lone Parents for work returning to benefit within six months, 29 per cent within a year, and 40 per cent within two and a half years. McQuaid, Fuytes and Richard (2010) found that a lack of adequate childcare provision was a particular barrier for all parents with children.

Young people are also more likely to be in low-paid work, but there is some debate about whether this is a transitory phenomenon, and how this can be captured in analysis of the data. Gregory (2000, pp 169-70) finds that there is a cohort of young men who are likely to move out of the low-paid category as their careers progress, but they also find that young women are much less likely to do so. In contrast, if an older worker is low-paid, there is considerable persistence of that status over time.

Lindsay and McQuaid (2004, p 301) suggest that cycling between work and unemployment is particularly common amongst people working in low-paid jobs in the service sector. They note that jobs in this sector are amongst the most likely to be low-skilled and short-term and low wage levels and frequent horizontal moves between similar jobs preclude people undertaking further training to improve their skills and consequently their pay levels. Additionally, Tomlinson and Walker (2010, p 4) found that skilled manual and low-skilled workers were groups at particular risk.

In addition to being at risk of cycling between income and no income, low earners are also likely to find it difficult to improve their earnings over time. Kenway (2004, pp 9-10) found that people in the top and bottom income quintiles were the least likely to experience income mobility. While on average only 7 per cent remained in the same income quintile over the period 1991-2000, 10 per cent who were in the bottom quintile were still there in 2000, and 40 per cent spent the majority of their time there. Similarly, Lawton (2007) found that between 2002 and 2005, 40 per cent of low-paid workers remained low-paid, and when people did transition into the medium pay bracket, their income tended to put them in the lower part of the bracket, suggesting that their earnings had not increased very significantly.

Having outlined what is meant by in-work poverty, we now look at the literature on policies that have been enacted by the UK government to attempt to reduce in-work poverty.

2.5 Policies related to in-work poverty

While changes both to welfare measures and labour market institutions can have an impact on in-work poverty, it is financial interventions related to benefit changes that have received the most attention in the literature. Research on this topic stretches back to the early 1970s, following the introduction of the Family Income Supplement in 1971 which was an in-work benefit providing additional income for low-paid people in certain circumstances. There is a large body of literature tracing the history of in-work benefits from this period onwards (see, for example, Wilkinson, 2001).

The majority of the literature on in-work poverty focuses on the extent to which certain policies can increase or reduce in-work poverty. Firstly, there are studies that attempt to identify what impact reforms have had and whether there are some groups that may actually be discouraged from taking employment as a consequence of unfavourable changes to their income (see, for example, Bennett and Millar, 2004; Brewer, 2001; Brewer and Shephard, 2004; Brown and Pudney, 2005; Freud, 2005; Grover, 2005; Howarth and Kenway, 2004; Kenway, 2008). These studies tend to find that marginal tax rates make work only marginally beneficial economically for certain groups, and that lone parents are particularly affected; secondly, there are studies that look at the relationship between in-work benefits, skills and human capital development, again looking particularly at whether in-work benefits provide a disincentive for particular groups to engage in skills development due to the marginal returns in income (for example, Adler, 2004; Brewer, 2001; Kenway, 2008); and thirdly, there are a small number of studies looking at employer's attitudes to in-work benefits and the impact they have on wage-levels (for example, Azmat, 2008).

2.5.1 *Work-related tax credits*

The relationship between benefits and in-work poverty is complicated. The tax credits system itself is highly complex and based on various entitlements and income thresholds. Entitlement in one area may lead to reduction in another, and in some cases, the loss of one entitlement may not be compensated for by the increase in others, as in the case of people in low-paid jobs who find that the Working Tax Credit does not off-set the income they lose from moving off benefits.

Work-related tax credits are designed to ensure that when wages themselves are not regarded as sufficient to keep a working individual out of poverty, the state will step in to ensure that a minimum income is achieved.

The Working Tax Credit³ is assessed on the basis of family income and other entitlement conditions which relate to hours of work (at least 16 hours per week for families with children and disabled people and at least 30 hours per week for non-disabled single people and childless couples), and to age (non-disabled single people and childless couples must be aged 25 or over to be eligible). Those working 30 or more hours per week receive a bonus.

Adler (2004, p 88) describes the focus on active labour market policies as a new and distinctive type of policy-making, firstly because of the ways in which these two areas of social security policy have become linked, and secondly because, taken together, these policies encourage people to accept low-paid employment, breaking with previous thinking that a relatively high level of unemployment was acceptable if those who were in employment were in relatively well-paid jobs.

³ HM Revenue & Customs, *What counts as work for Working Tax Credit?*
<http://www.hmrc.gov.uk/taxcredits/start/who-qualifies/how-work-qualifies.htm>

Table 2.7: Measures targeted at low-income workers/families in the UK, 1998-2009

Year	Measure	Target
1998-2000	Earnings Top-up (means-tested in-work benefit) piloted	Household
1998	Maximum childcare costs disregarded in Family Credit increased	Household
April 1998 June 1998	Subsidised jobs for young under New Deal for Young People Subsidised jobs for adult long-term unemployed under New Deal 25+	Individual
April 1999	National Minimum Wage become law	Individual
April 1999	Introduction of 10% lower income tax rate, replacing 20% lower band	Individual
April 1999	Abolition of NI 'entry fee' for employees	Individual
Oct 1999	Working Families Tax-Credit (with child support disregarded), and including Childcare tax Credit	Household
Oct 1999	Disabled Person's Tax Credit	Household
April 2000	Increases in Child Benefit	Household
June 2000	Increases in Working Families Tax Credit rates for under-16s	Household
June 2000	National Minimum Wage raises for 18-21s	Individual
Oct 2000	National Minimum Wage increased for adults	Individual
Oct 2000	Campaign to encourage take-up of Working Families Tax Credit	Household
April 2001	Introduction of 'primary threshold' (at tax threshold level) for employee NI contributions above lower earnings limit	Individual
Budget 01	Increase in 10% income tax band	Individual
June 2001	Higher Working Families Tax Credit and Childcare Tax Credit	Household
Oct 2001	Minimum wage for adults and youths increased	Individual
June 2002	Increases in basic credits in tax credits	Household
Oct 2002	Minimum wage for adults and youths increased	Individual
April 2003	Working Tax Credit: based on 2001/2 income levels initially, but current working circumstances	Household
April 2003	Childcare element of Working Tax Credit	Household
Oct 2003	Minimum Wage for adults and youths increased	Individual
April 2006	Percentage of child care costs included in WTC increases from 70% to 80%	Household
April 2006	Increase in tax credit income disregard for an annual increase in income	Household
April 2006	Existing WTC claimants have their credits paid directly, rather than through their wage packet	Household
Feb 2007	Introduction of New Deal for Carers	Individual
April 2008	Increase in child element of Child Tax Credit. Working Tax Credit income threshold increased	Household
Jan 2009	Increase in Child Benefit	Household
March 2009	New law to tackle child poverty laid before the National Assembly in Wales	Household
April 2009	Increase in child element of Child Tax Credit.	Household
April 2009	Employers' 'Golden Hellos' recruitment subsidy introduced for employers taking on someone who has been unemployed for at least 6 months	Individual
June 2009	The government publishes a UK-wide Bill aiming to enshrine the commitment to eradicate child poverty by 2020 into law	Household
Oct 2009	Flexible New Deal introduced to replace New Deal for Young People, New Deal 25+ and Employment Zones.	Individual
Nov 2009	Child Benefit fully disregarded in calculating Housing Benefit and Council Tax Benefit.	Household

Source: based on Bennett and Millar (2004, p 30) and updated using information from Patterson (2007) and Davis and Patterson (2009).

A full discussion of the different types of in-work benefits can be found in papers by Tripney et al (2009) and Bennett and Millar (2004). Table 2.7 above based on Bennett and Millar (2004, p 30) and updated using information from Patterson (2007) and Davis and Patterson (2009) summarises measures targeted at low-income workers or families.

2.5.2 Unemployment and poverty traps

A key issue in looking at the relationship between in-work poverty and benefits is the extent to which the benefit system encourages people to move into low-paid employment. This varies for different groups. As has been mentioned, there are some groups who find themselves in an 'unemployment trap' because the transition into employment is not financially beneficial, or is only marginally so, due to the loss of benefits not being replaced by gains in income through wages and tax credits. Brewer and Shephard (2004, p 44) found that while benefit and tax credit reforms had increased the financial reward to having one adult in a household work, they have also reduced the financial reward to having a second earner, and in some cases the household may be better off if the second earner reduces their working hours to increase other entitlements.

The impact of marginal tax rates on in-work poverty is also an issue, particularly in cases where an individual may find themselves in a 'poverty trap' in which an increase in earnings would result not only in having to pay more income tax and national insurance but also in the withdrawal of means tested benefits. This particularly affects certain groups. For example, Brewer and Shephard (2004) find that lone parents face worse incentives to progress simply because they tend to be entitled to more means tested benefits.

2.5.3 The distribution of in-work poverty among different groups

Lindsay and McQuaid (2004, p 298) state that it is a proven fact that employment not only reduces the poverty risk, but also the general risk of social exclusion. Work is a major means for social integration. Wages provide the means to access various integrative activities; low wages can preclude people from being able to do so (Freud, 2007, pp 45-46). It is therefore a particular concern if some groups, especially those who are at risk of social exclusion due to other characteristics, are at risk of further exclusion due to their inability to access an adequate income through employment.

The experience of poverty can have a long-term impact. Ridge (2002) and Johnson and Reed (1996) find that there is transmission of poverty between generations as experience of poverty in childhood increases the likelihood of poverty, social exclusion and lack of opportunity to participate in adulthood. Additionally, Atkinson and Hills (1998) find that there is evidence of a relationship between parental income and childhood educational attainment, and individuals with low levels of educational attainment are more likely to experience social exclusion as adults (e.g. see Dearden et al, 2000; Sparkes, 1999; Hobcraft, 1998).

As has been mentioned above, there are some groups that are particularly likely to experience in-work poverty. Women (Phimister and Theodossiou (2008), lone parents (Cooke and Lawton, 2008; Millar, 2008), young people (Smith and Middleton, 2007) ethnic minorities (Cooke and Lawton, 2008; Kenway, 2008), disabled people (Cooke and Lawton, 2008), people with low or no qualifications and workers in particular sectors are disproportionately likely to experience low pay and poverty (Harker, 2006). For example, in the East Midlands, the regional gender pay gap between men and women is 14.6 per cent, there is a 12.3 per cent difference in the

economic participation rates of the minority ethnic groups compared to the White population, and disabled people have low participation and employment rates. (*emda*, 2009, p 16 - Updated as 'The East Midlands in 2010')

In the literature there is a particular concern for people with children (see, for example, Graham, et al, 2005), which reflects, in part, the relationship of work in this area with policies on child poverty. It is also the case that people with children tend to be more at risk of in-work poverty, particularly when this is measured at a household level. Cooke and Lawton (2008, p 7) find that 48 per cent of all working-poor family units in 2006 were couples with children, and lone parents accounted for a further 10 per cent. Single, childless people accounted for 28 per cent of the working poor, and couples without children for 14 per cent. Additionally, Harker (2006, p 40) finds that parents moving off Jobseeker's Allowance are more likely than non-parents to move into low-paid work, have debts or have difficulty coping financially.

The report now turns to the extent and nature of in-work poverty in the East Midlands.

3. Statistical evidence on in-work poverty in the East Midlands

This chapter provides an analysis of the scale and distribution of low pay workers in the region, and the level of in-work poverty.

The chapter includes:

- definitional and contextual issues building on the discussion in Chapter 2;
- analysis of low-paid work in the East Midlands;
- estimates of income at micro area level;
- the extent of in-work poverty in the East Midlands; and
- information on receipt of selected in-work benefits in the East Midlands.

Key points in this chapter are:

- Across different definitions, the incidence of low-paid employment in the East Midlands is higher than that observed across the UK as a whole.
- Approximately a quarter of individuals working within the East Midlands were employed in low-paid occupations in 2009.
- In the region just over 30 per cent of employees worked in low-paid sectors in 2008.
- The incidence of employment within low-paid occupations and sectors in the East Midlands was largely the same in 2001 and in 2008.
- Approximately 14-18 per cent of those in work in the region in 2008/09 had hourly earnings less than 60 per cent of median hourly earnings.
- Across different definitions of low-paid employment, the incidence of employment within low-paid jobs is higher among women, the young, non-white people and among those not born in the UK.
- Lincolnshire exhibits the highest incidence of low-paid work, both in terms of the location of workplaces and people's homes.
- Based on HBAI data, in the East Midlands in 2007/08 10.5 per cent of individuals living in working families lived below the poverty threshold before housing costs, compared to the UK average of just over 9 per cent.
- In the East Midlands in 2007/08 the proportion of people living in working families but below the poverty threshold was just under 14 per cent after housing costs, compared to the UK average of just over 14 per cent.
- The level of in-work poverty in the East Midlands has increased since 2004/05, from 11 per cent to 14 per cent (after housing costs).
- Compared with the other regions of the UK the East Midlands is 6th in terms of the incidence of in-work poverty before housing costs; on the after housing costs measure the ranking of the East Midlands declines to 8th, reflecting the relatively cheap costs of accommodation within the region.

- The average weekly household net income estimates (equivalised after housing costs) for households for 2007/08 show that income estimates are lowest in the coalfield area, East Lincolnshire and the main cities.
- City areas are characterised by the relatively high incidence of people in low-paid work who live in these areas; but the incidence of low-paid work located in these areas is relatively small.
- In-work poverty is increasingly prevalent in families within the East Midlands that: are headed by women, young people, a non-white person, or a lone parent; contain couples where only one person works, whether it be full-time but particularly part-time; and have higher numbers of dependent children.
- Young people, women, ethnic minorities and migrants are disproportionately concentrated in low-paid work – in this regard the East Midlands is similar to the rest of the UK (excluding London where the profile of low-paid work is distinctive).
- The retail, hospitality and social care sectors account for the largest proportions of low-paid employment within the East Midlands (sectors which it should be noted are projected to grow in terms of employment), although the proportion of low-paid work accounted for by food processing is larger than that observed within the UK as a whole.

3.1 Introduction

This chapter provides an analysis of the scale and distribution of low-paid workers in the region and the level of in-work poverty, using data from selected statistical sources. At the outset some definitional and contextual issues are outlined, building on the discussion in Chapter 2. Then data from the Labour Force Survey (LFS)⁴ are utilised as the primary source to provide evidence as to the number of people in low-paid work in the East Midlands, on the grounds that it gives the most accurate available picture of the occupational and sectoral composition of employment. Further analyses are presented or referred to using individual-level data from the Annual Survey of Hours and Earnings (ASHE)⁵ at regional and sub-regional levels. Evidence from publicly-available ASHE data is presented to provide a portrait of earnings at local level; while experimental estimates of income provide some insights into micro area level variations in income. Evidence from the Households Below Average Income (HBAI) data set is then outlined. In order to provide further insights into in-work poverty at the local level, information on selected in-work benefits at local level in the East Midlands is also presented.

3.2 Defining low-paid work

As noted in the previous chapter, there is no single method of defining what constitutes low pay and therefore who works in low-paid jobs. For the purpose of this analysis, the definitions of low paying occupations and low paying sectors derived by

⁴ LFS data are for calendar years.

⁵ It should be noted that this work contains statistical data from ONS which is Crown copyright and reproduced with the permission of the controller of HMSO and Queen's Printer for Scotland. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research data sets which may not exactly reproduce National Statistics aggregates.

the Low Pay Commission (LPC) are utilised. These occupations and sectors have been identified by the LPC as having a large number or a large proportion of low paying jobs and are utilised to inform their annual recommendations regarding the size of the National Minimum Wage (see National Minimum Wage, LPC, 2009). Full details of the derivation of low paying areas of work are provided within Annex 2. Based upon the occupational derivation, twelve areas of low-paid work are defined: retail, hospitality, social care, textiles, cleaning, hairdressing, security, agriculture, leisure, food processing, childcare and office work. It is noted that childcare and office work can only be identified in the occupationally based derivation.

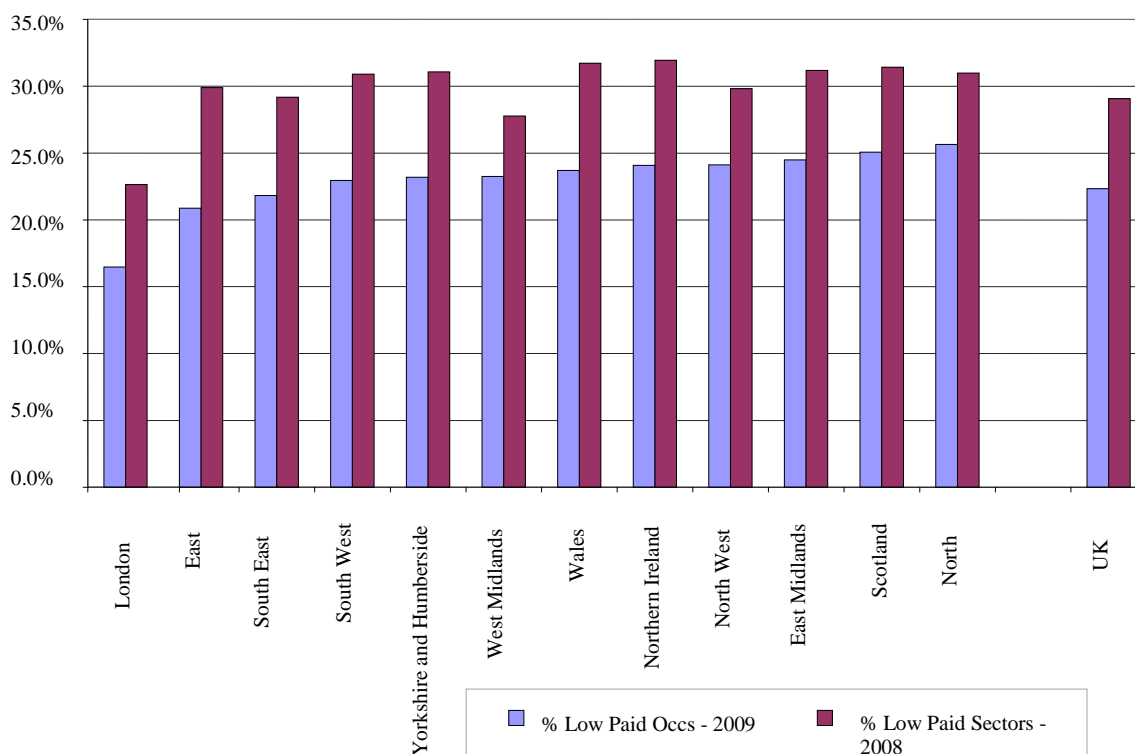
The Standard Industrial Classification (SIC) was recently revised, with SIC2007 replacing SIC2003. The 2007 SIC has begun to be utilised within sources of secondary data over the last couple of years. Within the LFS, SIC 2003 last appeared during 2008. Although 'cross-walks' have been derived between SIC2007 and SIC2003 at sector and division level, the LPC derivation of low-paid sectors based on SIC2003 required industry data to be available at class or sub-class level. For this reason, it is not possible to operationalise the LPC industry based definition of low-paid sectors with 2009 LFS data. Within ASHE, the old industrial classification remains on the 2008 data.

An alternative definition of low pay utilised here refers to an individual's hourly earnings. Here low pay is defined with reference to a certain threshold level of earnings. Various options are available. For example, we could investigate the proportion of people who are working beneath the minimum wage or beneath a derived measure of a Living Wage. We define low pay with reference to average gross hourly earnings. In common with the approach taken within the HBAI, and the definition outlined in Chapter 2, the low-paid are defined as those who are paid at less than 60 per cent of median gross hourly earnings. Exploratory analysis of the data revealed that, other than the absolute numbers of those in receipt of low pay, the substantive findings of the research remained stable when using different threshold values (e.g. 65 per cent or 70 per cent median earnings). For ease of exposition, findings are reported based on the 60 per cent measure.

3.3 Regional variations in the incidence of low pay

Figure 3.1 shows the proportion of people employed in low-paid occupations and sectors based on the LPC derivations applied to the Labour Force Survey (LFS) data set. Based upon the LFS, within the UK it can be seen that 22.3 per cent of individuals work within low-paid occupations. However, 24.5 per cent of individuals working within the East Midlands are employed within such occupations. This level of low-paid work is generally comparable to that observed within peripheral areas of the UK, although the nature of low-paid work in these areas may be expected to be considerably different. The lowest incidences of people working within low-paid occupations are found within London, the East and the South East regions of England.

Figure 3.1: Percentage of employees working in low-paid occupations and sectors by region (2008 and 2009)



Source: Labour Force Survey, 2008, 2009, Office for National Statistics.

Note: Those in employment include full-time, part-time and self-employed together.

In terms of the proportion of people employed in low-paid sectors, within the UK it can be seen that 29 per cent of individuals work within low-paid sectors. This is compared with a figure of just over 30 per cent within the East Midlands in 2008. This higher estimated incidence of low pay based upon a sector derivation is to be expected. It can be seen that the overall position of the East Midlands being characterised by a relatively high incidence of people being employed in low-paid jobs remains, with the level of low pay work being comparable to that observed in Scotland, Wales and Northern Ireland.

There is a difference between the occupational and the sectoral classification of low-paid jobs. This is because the conceptual basis of the Standard Occupational Classification SOC is to classify jobs together that are characterised by similar levels of education and/or training associated within the competent performance of work tasks. SOC therefore distinguishes between those individuals who may be working in the same sector, but hold positions that vary considerably in terms of their pay. The SOC based definition of low paying jobs will therefore not include well paid jobs within low paying sectors (e.g. managers, professionals), resulting in a smaller number of people being classified as having low-paid jobs.

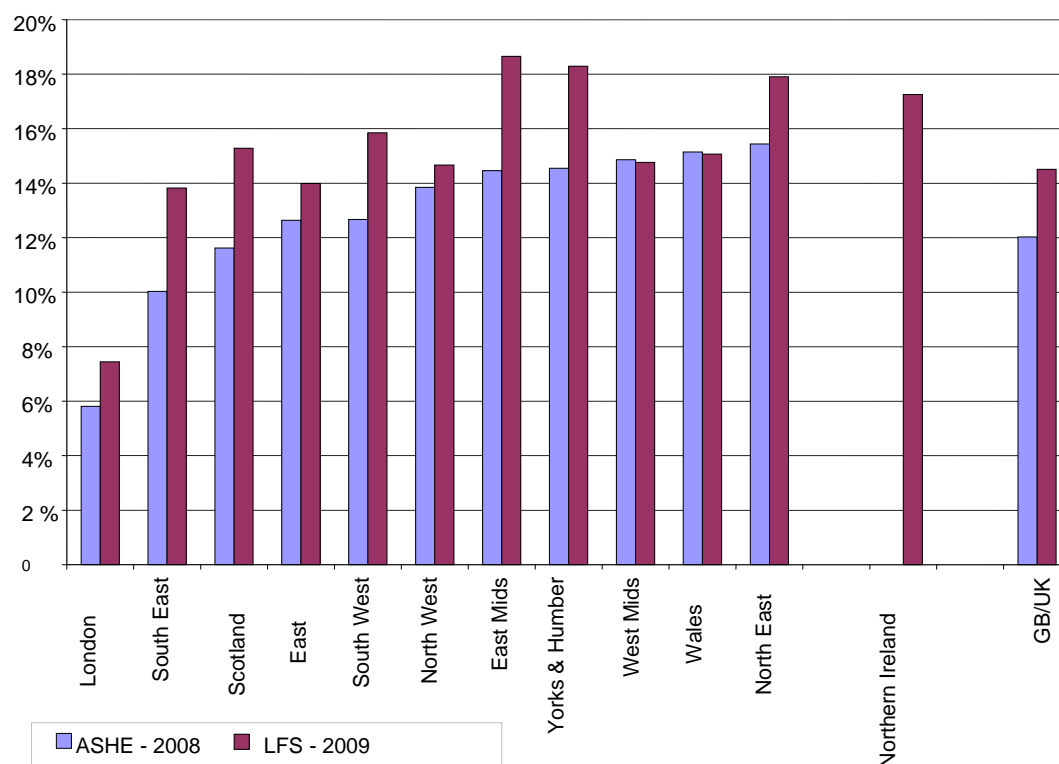
Findings based upon the ASHE data set are similar to those derived from the LFS. Based upon the ASHE⁶, 22.8 per cent of employees in Great Britain work within low-paid occupations. This is compared to 23.5 per cent of employees working within the East Midlands who are employed within such occupations. In terms of low-paid

⁶ Detailed results based upon ASHE are not shown for ease of exposition.

sectors, 25.5 per cent of employees in Great Britain work within low-paid sectors. This is compared with 27.9 per cent of individuals in the East Midlands who are employed within these sectors of the economy.

Figure 3.2 shows the proportion of people employed at less than 60 per cent of median gross hourly earnings, applied to both the LFS and ASHE data sets respectively. **Due to both its larger sample size and the accuracy of the earnings data which is collected directly from employers, the ASHE data should provide a more accurate measure of an individual's earnings and the proportion of those within a region who earn less than a particular threshold of earnings.**

Figure 3.2: Percentage of employees earning less than 60 per cent of median gross hourly earnings, by region (2008 and 2009)



Source: Annual Survey of Hours and Earnings, 2008, and Labour Force Survey, 2009, Office for National Statistics.

Note: The national comparator is Great Britain for the ASHE. ASHE does not include self-employed.

Based upon the **LFS**, within the UK it can be seen that 14.5 per cent of individuals earn less than 60 per cent of median gross hourly earnings. However, it can be seen that **18.7 per cent of individuals working within the East Midlands earn less than 60 per cent of median gross hourly earnings**, the highest rate of low pay observed across all regions of the UK.

Based upon the **ASHE** data, within Great Britain it can be seen that 12 per cent of individuals earn less than 60 per cent of median gross hourly earnings. However, it can be seen that **14.5 per cent of individuals working within the East Midlands earn less than 60 per cent of median gross hourly earnings**. Note that the ASHE data do not include information on the self-employed.

Differences in estimates of the incidence of low pay within the East Midlands from these sources are therefore likely to reflect the general higher incidence of employment in low-paid work based upon the LFS and the relatively small sample sizes available within the LFS.

The lowest incidences of people earning less than this threshold value of earnings are found in the 'Greater South East' – notably London. It is noted at the outset that no attempt is made to control for variations in the cost of living observed across different areas of the country and the higher earnings that need to be paid to workers in relatively high cost areas of the country in order to compensate workers for the higher costs associated with working in these areas. The importance of housing costs in contributing to the relative incidence of poverty across the regions in the UK is considered in the analysis of HBAI data presented later in this chapter.

3.4 Trends in regional low pay

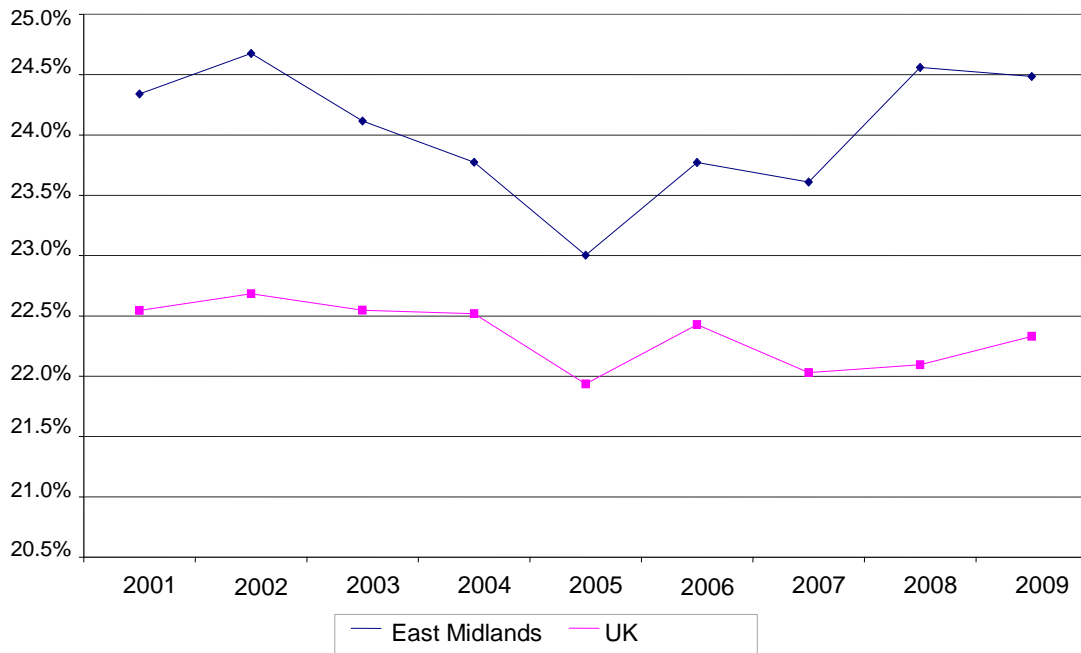
Figures 3.3-3.5 present information on trends in the relative incidence of low pay in the East Midlands compared to that observed across the wider economy. Data suggest that in 2009 the percentage of people employed in low-paid work, identified by selected occupations and sectors, within the East Midlands was significantly higher than that observed across the rest of the UK.⁷ However, it is difficult to derive a consistent picture of year-on-year changes in employment within low-paid work when comparing different derivations of low-paid employment. For example, based upon the occupational measure derived from the LFS there is evidence to suggest that employment within low-paid occupations in the East Midlands declined up until 2005, but then increased thereafter (Figure 3.3). This distinct pattern is not repeated in the sectoral derivation of low-paid employment (Figure 3.4). The incidence of employment within low-paid occupations and sectors in the East Midlands was largely the same in 2001 and in 2008.

The proportion of employees who are employed at less than 60 per cent of median gross hourly earnings is presented in Figure 3.5 using the ASHE data set. Once again, due to the limitations of earnings data derived from the LFS, estimates are presented based on ASHE data. It is noted that the ASHE data underwent several methodological changes during 2007, including a reduction in sample size of approximately 20 per cent, the introduction of automated occupational coding and changes in the treatment of Special Arrangement employers who provide data electronically to ONS.⁸ Whilst alternative versions of the ASHE data are available for 2006 to enable consistent comparisons to be made with the previous or following year's data, it is not possible to avoid discontinuity in the series. However, it is unlikely that these discontinuities affect estimates of the proportion of individuals earning beneath particular earnings thresholds and the general findings of the analysis. Figure 3.5 exhibits a steady downward trend in the proportion of employees classified as 'low paid' from 2002 onwards.

⁷ Some supplementary analyses of publicly available pre-aggregated tabular data from ASHE (accessed via Nomis) are presented in Annex 3. The series of tables include disaggregations by gender and full-time/part-time and statistics of decile groups for the earnings distributions. These tables provide a useful overview of earnings in the East Midlands in a broader context.

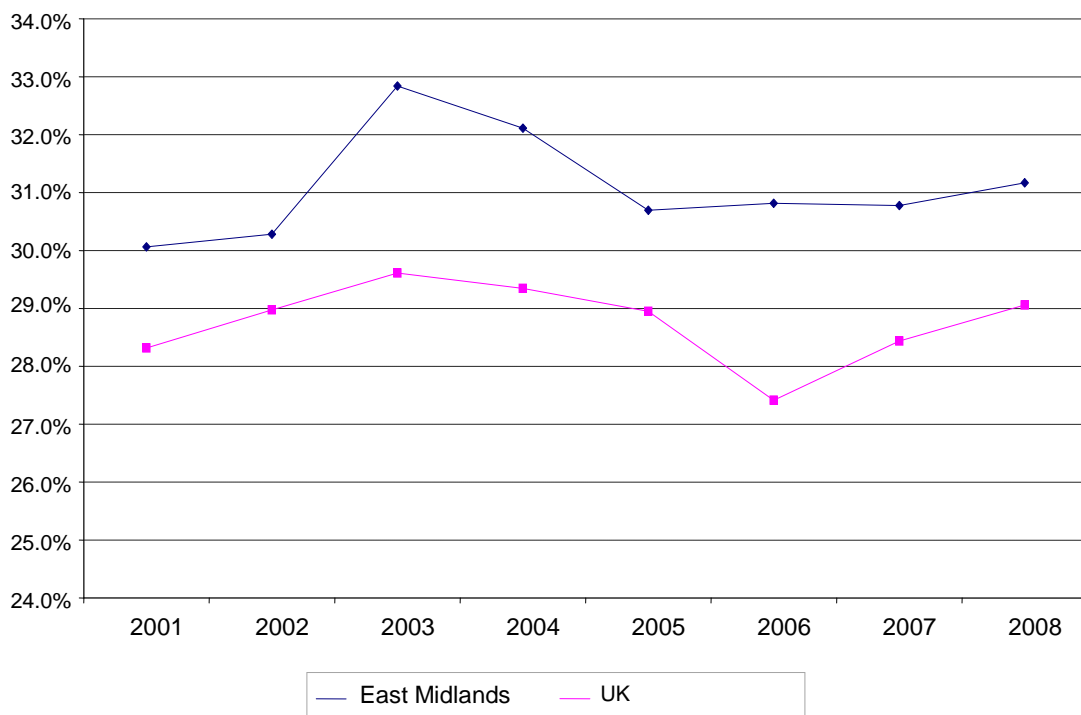
⁸ See http://www.statistics.gov.uk/downloads/theme_labour/ASHE/ChangeInASHE07.pdf for overview of changes.

Figure 3.3: Percentage of employees working in low-paid occupations, comparing the East Midlands to the UK average (2001-2009)



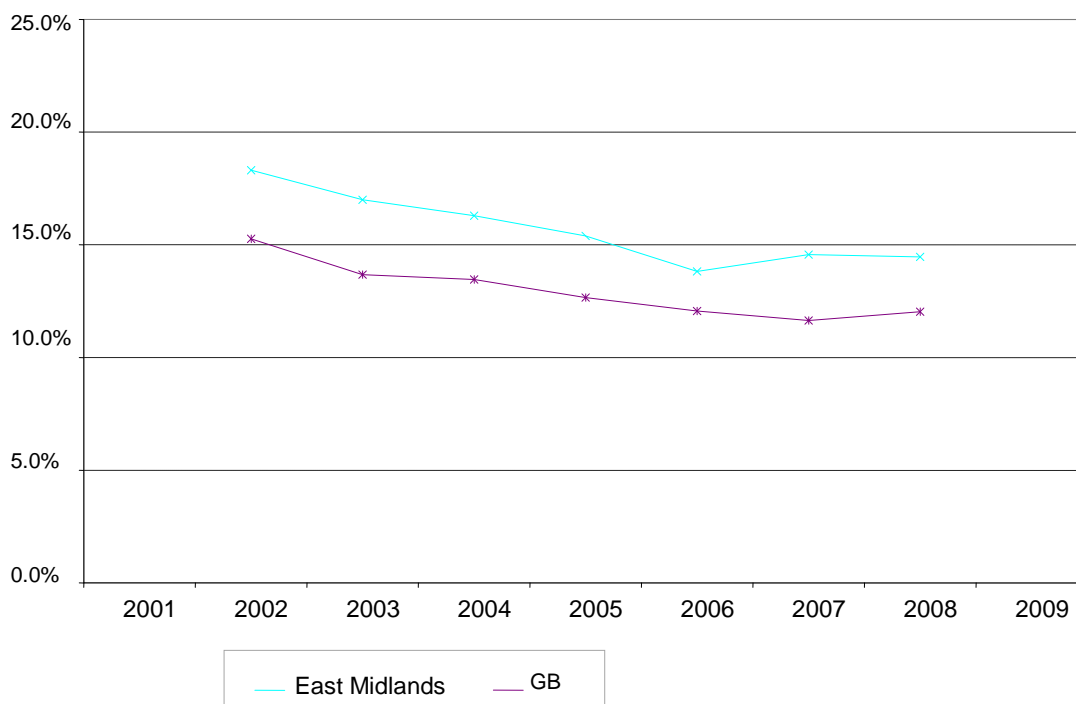
Source: Labour Force Survey, 2001-2009, Office for National Statistics.

Figure 3.4: Percentage of employees working in low-paid sectors, comparing the East Midlands to the UK average (2001-2009)



Source: Labour Force Survey, 2001-2009, Office for National Statistics.

Figure 3.5: Percentage of employees in the ASHE data earning less than 60 per cent of median gross hourly earnings, comparing the East Midlands to the GB average (2001-2008)



Source: Annual Survey of Hours and Earnings, 2002-2008, Office for National Statistics.

Note: There is a small discontinuity in the ASHE series at 2006 (see above explanation in text).

3.5 The nature of low-paid employment in the East Midlands

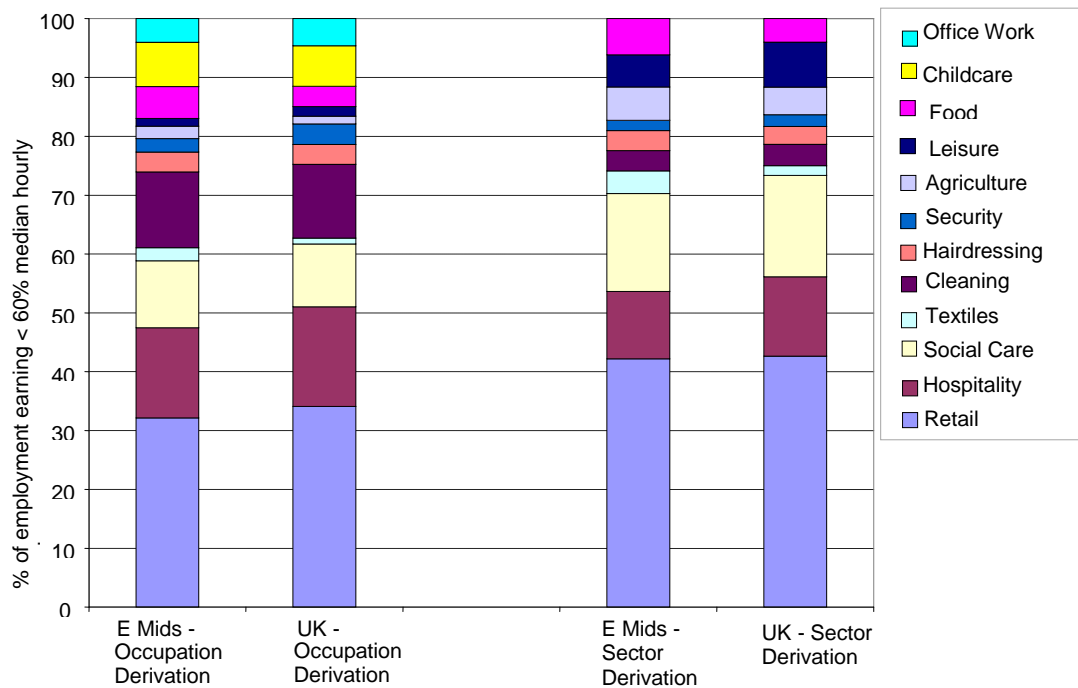
In section 3.2, it was noted that the LPC derivations of low-paid jobs were based on the classification of a number of different occupations and sectors as being 'low-paid'. These jobs cut across a number of areas of economic activity. It is therefore informative to consider how the composition of low-paid employment in the East Midlands compares to that observed across the UK more generally.

These comparisons based on merged LFS data for 2007-2009 are presented in Figure 3.6. On the left hand side of Figure 3.6, the vertical bars provide a breakdown of the occupational composition of low paid employment as derived from LPC occupation based definitions. The right hand side of Figure 3.6 provides a breakdown of low paid employment as derived from the LPC sector based definitions. In each case, these occupations and sectors are defined by the LPC as representing 'low paid' work. It should be noted that the occupationally derived measure includes two additional sub-categories that cannot be derived on the basis of sector coding: childcare and office work. It should also be noted that these groups may well include individuals who earn more than 60 per cent of median gross hourly earnings and will also exclude some individuals who earn less than the low pay threshold but who are employed in occupations and sectors not included in the LPC definition of 'low paid'.

First considering the occupation-based measure of low-paid work, it can be seen in Figure 3.6 that low-paid work in the East Midlands is characterised by a similar occupational and sectoral composition of jobs as in the UK; **low-paid employment is concentrated in retail, hospitality, and social care sectors (which it should be**

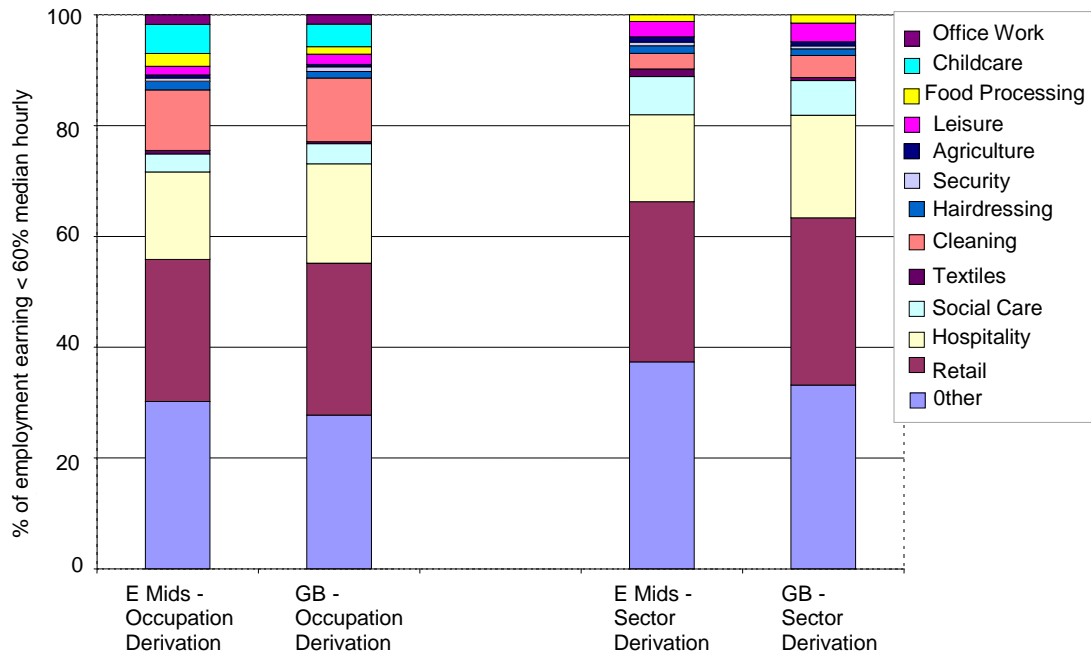
noted are projected to grow in terms of employment). Figure 3.7 presents details of the coverage of the LPC definitions of low-paid work for those workers whose hourly pay is less than 60 per cent of median gross hourly earnings based upon ASHE data for 2008; (as noted above, ASHE is the preferred source of data for the earnings threshold based derivation of low-paid work).

Figure 3.6: *Types of employment undertaken by workers in the LFS data set earning less than 60 per cent of median gross hourly earnings, comparing the sector and occupational definitions of low-paid work (%)*



Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission occupation categories.

Figure 3.7: Types of employment undertaken by workers in the ASHE data set earning less than 60 per cent of median gross hourly earnings, comparing the sector and occupational definitions of low-paid work (%)



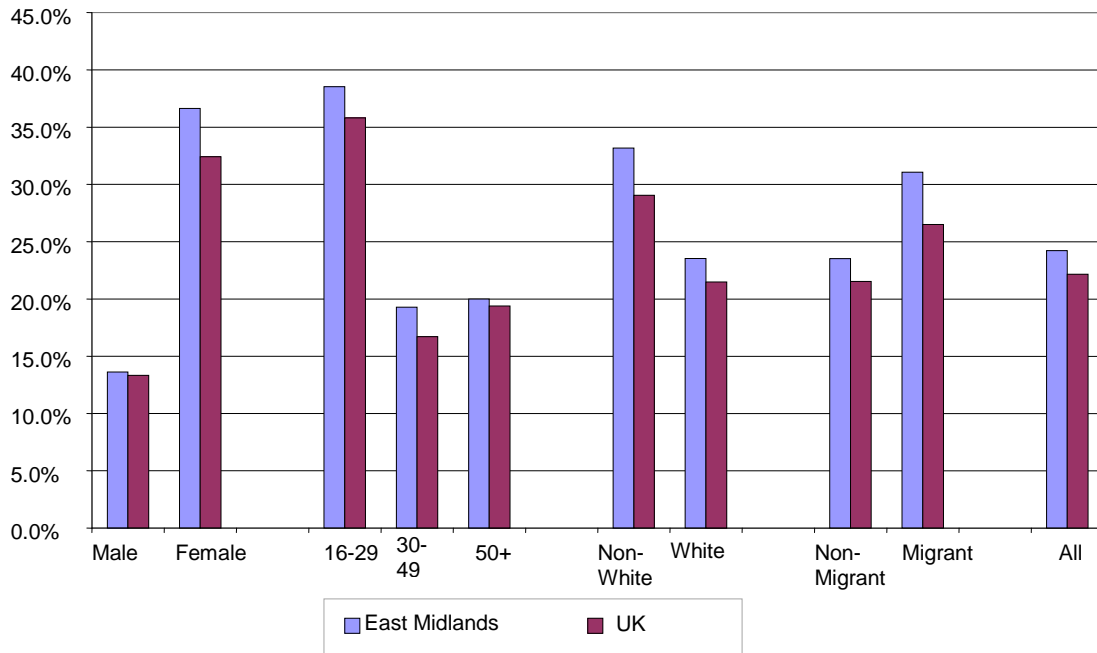
Source: Annual Survey of Hours and Earnings, 2008, Office for National Statistics, using Low Pay Commission occupation categories.

3.6 Who works in low-paid jobs?

Overall differences in the incidence of employment in low-paid jobs observed between the East Midlands and the rest of the UK will reflect a number of compositional factors. For example, it may be expected that the incidence of low-paid employment would vary across individuals depending upon a variety of personal characteristics. Figures 3.8-3.10 demonstrate how the incidence of employment within low-paid jobs (i.e. the percentage of those in employment within these groups who are in low-paid jobs) varies according to a variety of personal characteristics derived from the LFS. The analysis is based upon merged LFS data covering the period 2007-2009. As well as considering age and gender differences, there is also an explicit focus on ethnicity and migrant status as these two dimensions are of particular relevance to the equalities debate and are of importance to the East Midlands.

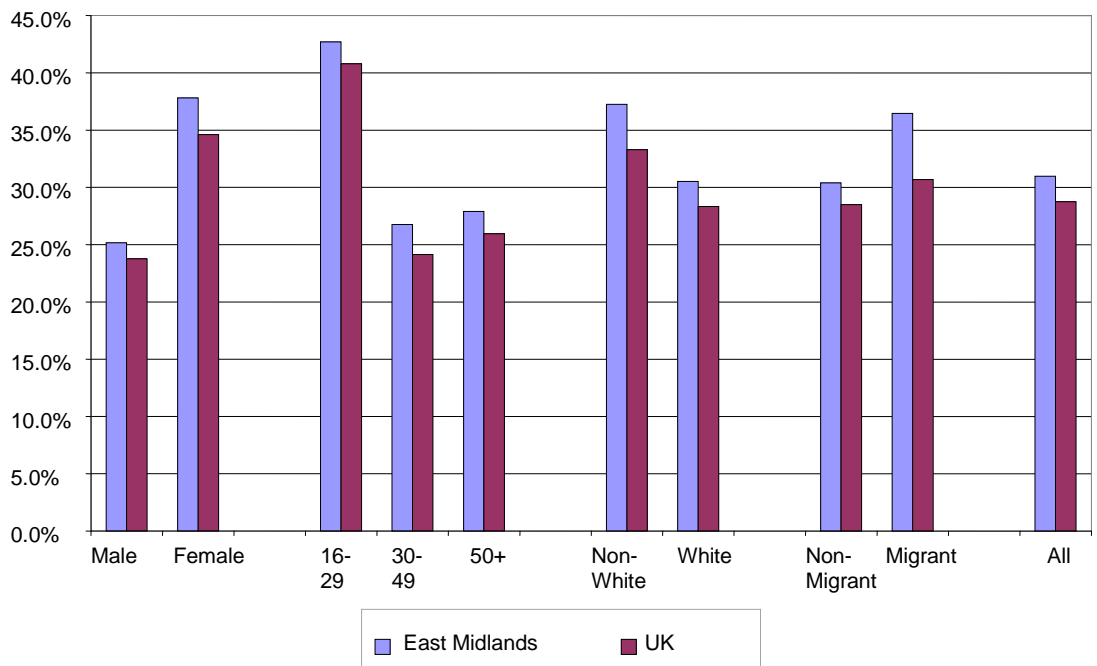
Across each of the three definitions of low-paid employment, the incidence of employment within low-paid jobs is higher among women, the young, non-white people and among those not born in the UK (i.e. the ONS preferred definition of migrant status). The occupational measure reveals the particularly large difference in the incidence with which women are employed in low-paid jobs, possibly reflecting the relative importance of occupational segregation where women ‘crowd’ into a group of relatively low-paid occupations that become identified as ‘female work’.

Figure 3.8: Percentage of employees working in low-paid occupations, by gender, age, ethnicity and migration status, comparing the East Midlands with the UK average



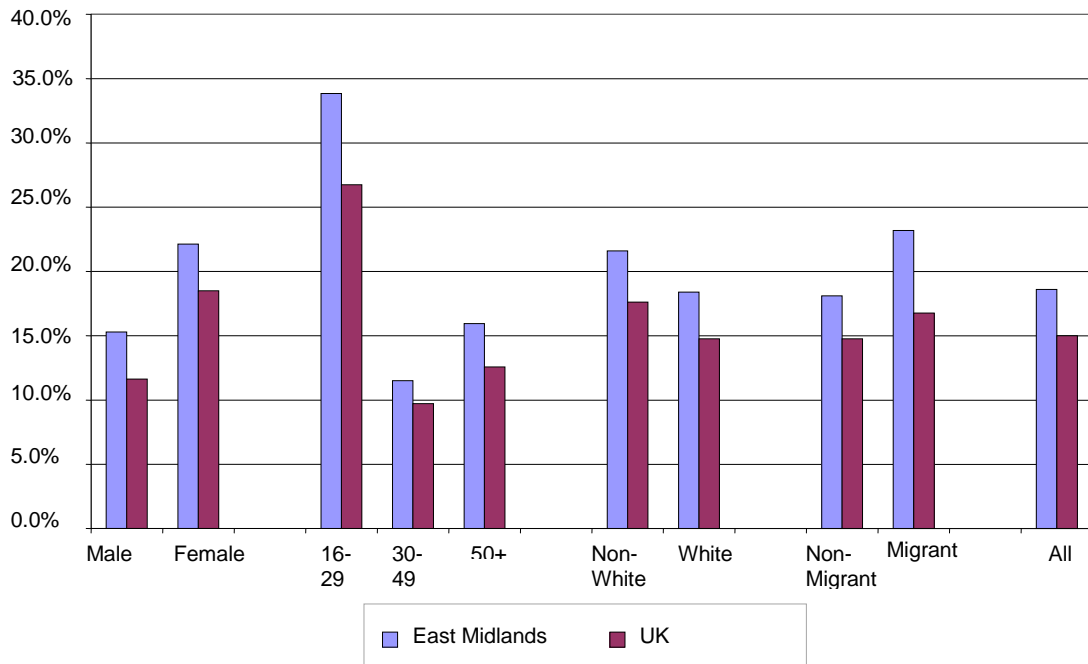
Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission occupation categories.

Figure 3.9: Percentage of employees working in low-paid sectors, by gender, age, ethnicity and migration status, comparing the East Midlands with the UK average



Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission sector categories.

Figure 3.10: Percentage of employees in the LFS data set earning less than 60 per cent gross median hourly earnings, by gender, age, ethnicity and migration status, comparing the East Midlands with the UK average



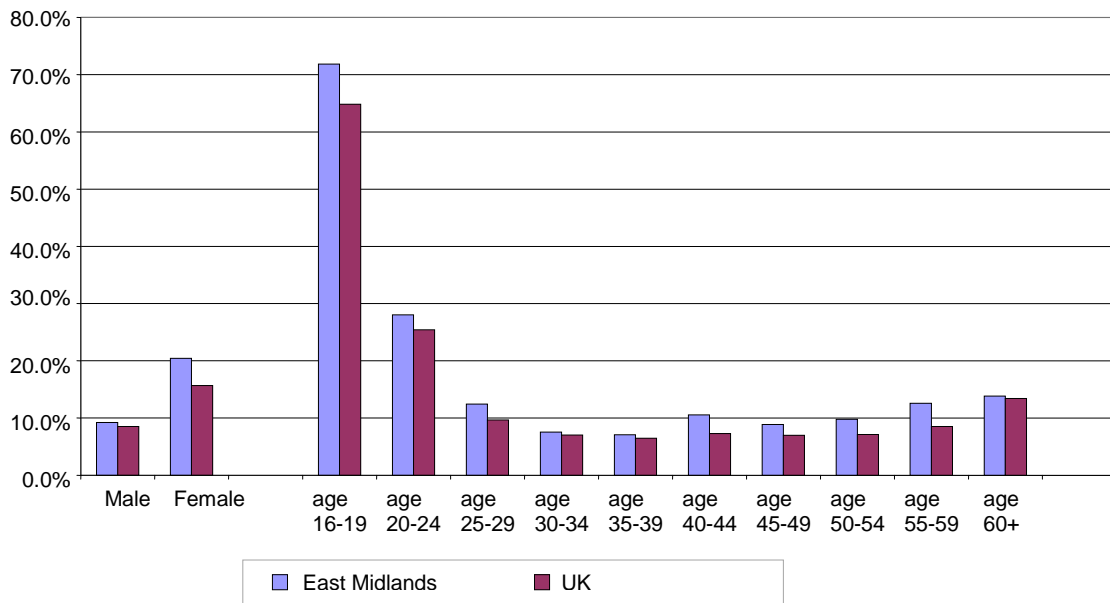
Source: Labour Force Survey, 2007-2009, Office for National Statistics.

It should be noted that differences between these categories may themselves reflect compositional differences. For example, the higher incidence of low-paid employment among migrants and ethnic minorities may itself reflect the relative age composition of these groups (i.e. migrants and ethnic minorities tend to display a younger age profile than the regional average). At a regional level, however, it is observed that differences in the incidence of low-paid employment between the East Midlands and elsewhere cannot be explained by differences in the demographic profile of those working in the region. Comparisons by gender, age group, ethnicity and migrant status reveal that, within these groups, a differential in the incidence of employment within low-paid jobs remains. Within each category those in the East Midlands earn less than the UK average.

Figure 3.11 demonstrates how the incidence of employment within low-paid jobs varies according to gender and age derived from ASHE data for 2008. Once again, the ASHE based analysis focuses upon the earnings threshold derivation of low-paid work due to the comparative advantage of ASHE in recording detailed information on earnings. No information on ethnicity and migrant status is available within the ASHE data. However, the much larger sample size that is available within ASHE facilitates an analysis that is based upon a more detailed range of age categories.

It is observed that the incidence of employment within low-paid jobs is higher among the youngest age groups, with approximately 70 per cent of employees aged 16-19 being employed in low-paid work. The incidence of low-paid employment is lowest among those aged 30-39.

Figure 3.11: Percentage of employees in the ASHE dataset earning less than 60 per cent gross median hourly earnings, by gender and, comparing the East Midlands with the UK average



Source: Annual Survey of Hours and Earnings, 2008, Office for National Statistics.

3.7 Regional variations in the composition of low-paid jobs

The analysis in the previous section has revealed that some groups are at a greater risk of being in low-paid work than others. The incidence of low-paid work was demonstrated to be greater among women, younger workers, those of ethnic minority descent and migrants. Understanding the relative composition of low-paid employment may be important in terms of the prioritisation and implementation of policies to assist those in low-paid work.

Figures 3.12-3.15 consider regional differences in the composition of those in low-paid employment between the East Midlands and elsewhere. The analysis is based upon merged LFS data covering the period 2007-2009. Each figure presents estimates based upon the occupational, sectoral and earnings threshold derivation of low-paid employment. Depending upon the measure chosen, women (Figure 3.12) account for approximately 60 per cent of those working in low-paid jobs.

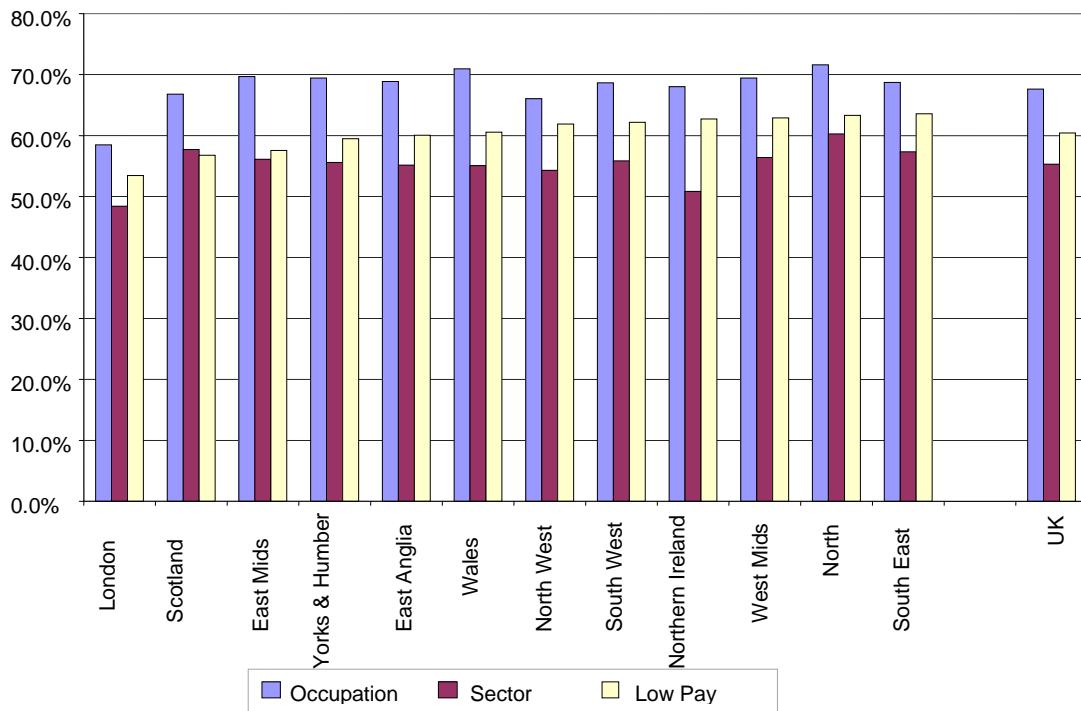
There is relatively little variation observed between regions in terms of the proportion of low-paid jobs filled by women, with the exception of London where a relatively high proportion of low-paid jobs are filled by men (6-10 percentage point difference depending upon the definition of low pay considered). In terms of both gender and age composition of low-paid work, the position of the East Midlands shows relatively little difference compared to the national average.

Whilst the East Midlands exhibits a relatively high proportion of ethnic minorities and migrants filling low-paid jobs (ranked 4th in both cases), it can be seen that London dominates all other regions of the UK in terms of the proportion of low-paid jobs that are filled by these groups. To some extent, this reflects inter-regional differences in the distribution of ethnic minorities and migrants.

The key points here are that:

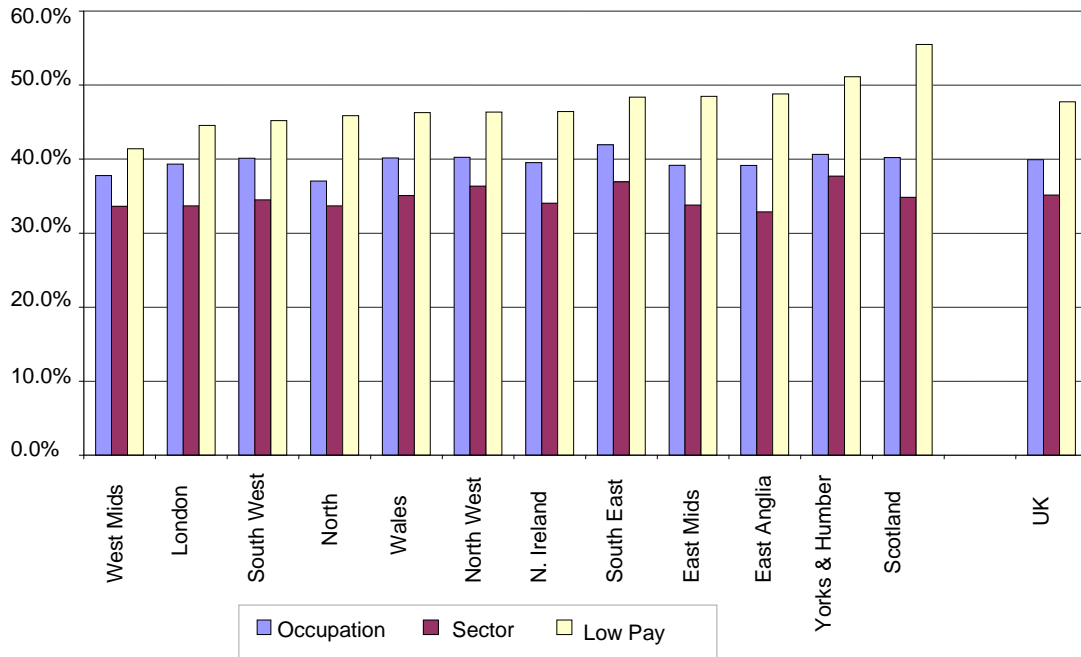
- young people, women, ethnic minorities and migrants are disproportionately concentrated in low-paid work; and
- in this regard the East Midlands is similar to the rest of the UK (excluding London where the profile of low-paid work is distinctive).

Figure 3.12: Percentage of employees working in low-paid occupations and sectors who are female, by region



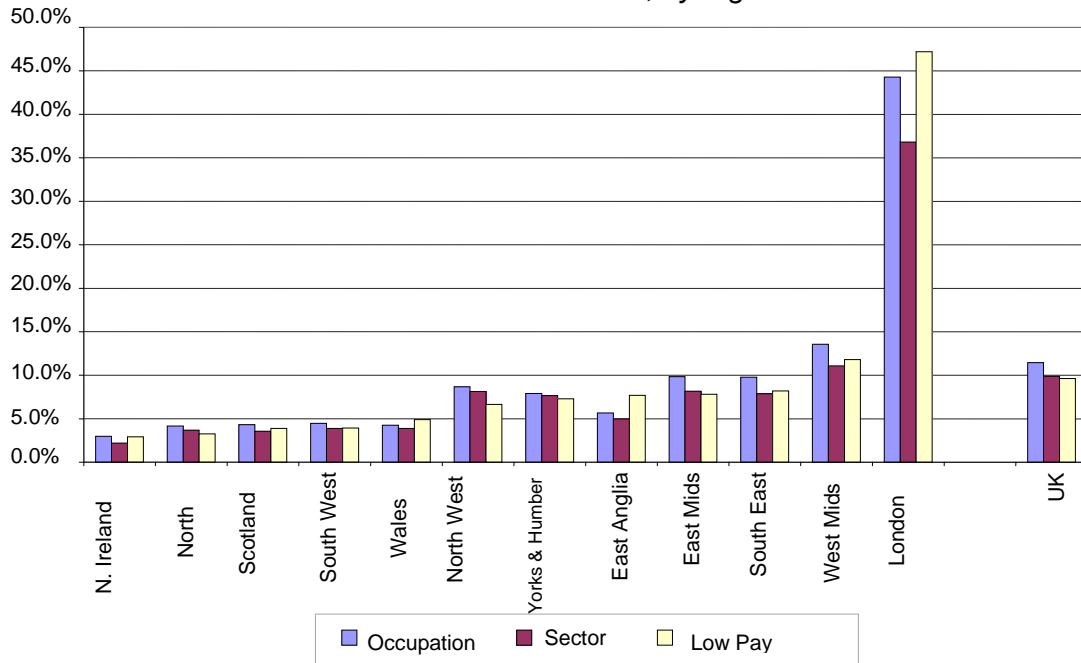
Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earnings.

Figure 3.13: Percentage of employees working in low-paid occupations and sectors who are aged 16-29, by region



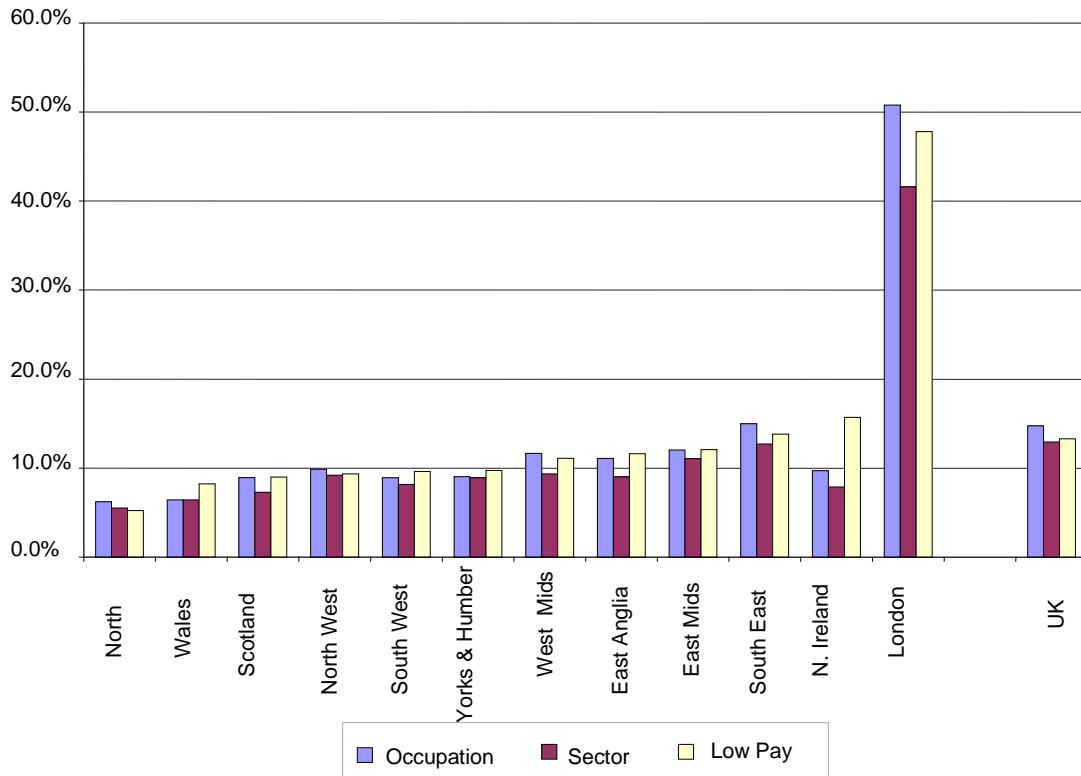
Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earnings.

Figure 3.14: Percentage of employees working in low-paid occupations and sectors who are ethnic minorities, by region



Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earnings.

Figure 3.15: Percentage of employees working in low-paid occupations and sectors who are migrants, by region



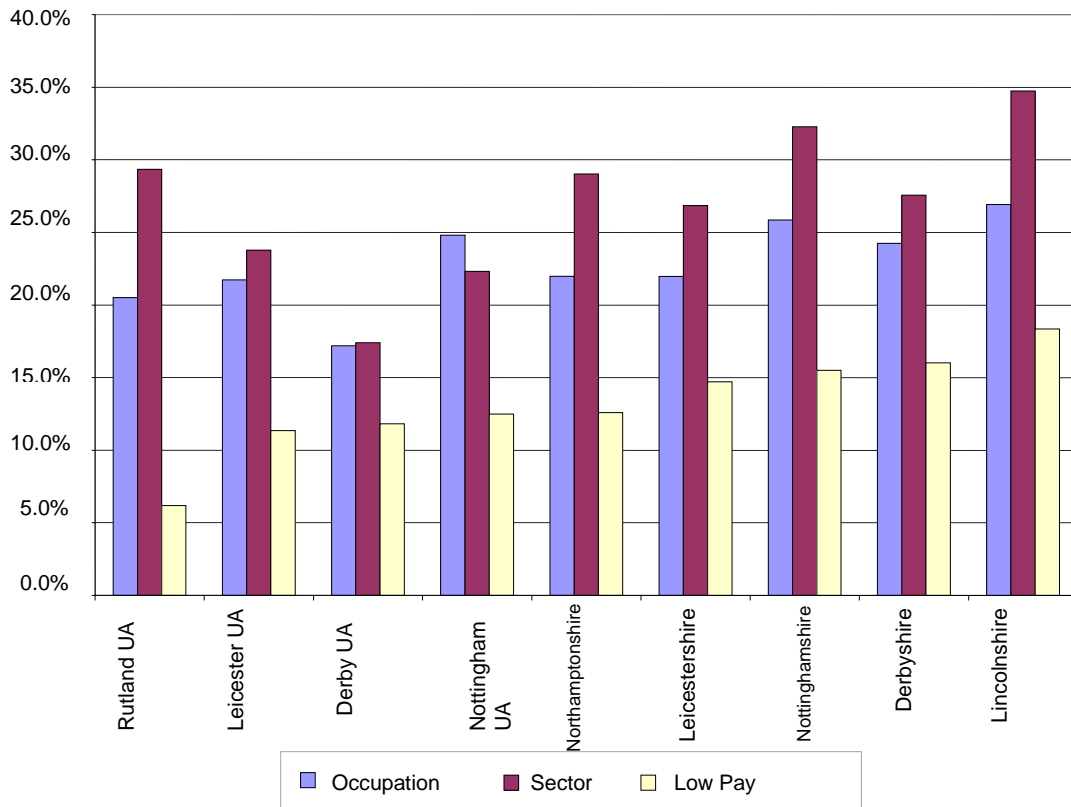
Source: Labour Force Survey, 2007-2009, Office for National Statistics, using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earning.

3.8 Sub-regional analysis of low pay in the East Midlands

The relatively large sample sizes available from the ASHE data facilitate an analysis of employment in low-paid work among employees at a sub-regional level. Figures 3.16 and 3.17 present information on the proportion of employees in low-paid work, based upon the three derivations of low-paid employment, at the Unitary Authority level. Information is provided based upon the location of the workplace (Figure 3.16) and the location of where the employee lives (Figure 3.17). It can be seen that the incidence of low pay, based on both the location of workplace and household (i.e. residence), is lowest within Rutland. Similarly, Lincolnshire displays relatively high levels of low pay based on both these measures, probably reflecting high levels of self-containment, with people in relatively low-paid employment both working and living in this rural area.

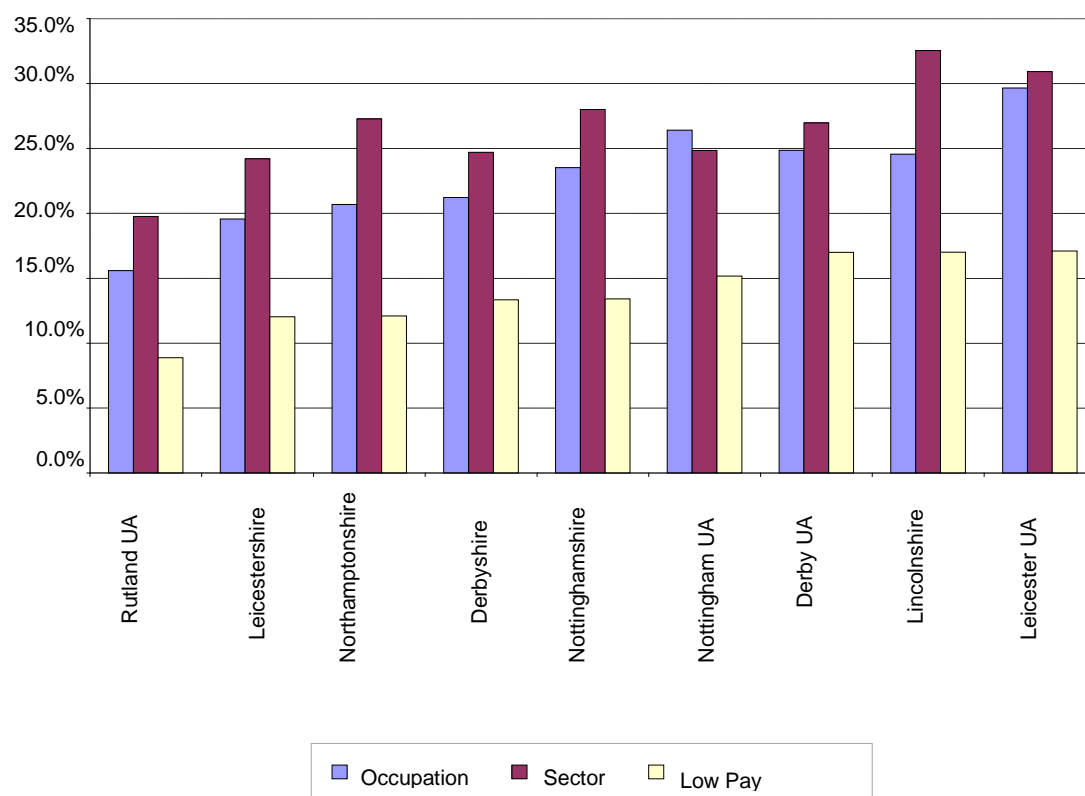
By way of contrast, it is observed that Leicester UA and Derby UA exhibit relatively low levels of low-paid work based upon the location of workplace. However, both of these areas exhibit relatively high levels of low-paid work among those who live in these areas. It is expected that these tightly-bounded cities have low levels of self-containment, where the availability of good job opportunities attract in-commuters from surrounding areas to fill these posts. We therefore observe relatively low levels of low-paid work based upon the workplace-based measure, co-existing with high levels of low-paid work when considering the residence-based measure.

Figure 3.16: Percentage of employees working in low-paid occupations and sectors in the East Midlands, by location of workplace (2008)



Source: Annual Survey of Hours and Earnings, 2008, Office for National Statistics, using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earning.

Figure 3.17: Percentage of employees working in low-paid occupations and sectors in the East Midlands, by location of residence (2008)



Source: Annual Survey of Hours and Earnings, 2008, Office for National Statistics. using Low Pay Commission sector and occupation categories and 60 per cent of hourly median earning.

3.9 Analyses of earnings at local level

The publicly available ASHE data allow the possibility of investigation at the local authority district scale. Confidence intervals limit what can be done in terms of investigating sub-groups and smaller samples but it is still possible to compare differences in pay across the region by local authority districts in the East Midlands. Analyses can be performed both by area of residence and area of workplace. Table 3.1 shows median weekly pay for all employees by local authority district in the East Midlands on a workplace-basis and residence-basis, respectively.

Table 3.1: Median Gross Weekly pay (£) by place of work and by place of residence by local authority (all employees) 2009

Local Authority	By place of work	By place of residence
East Midlands	375.4	379.5
Derby UA	464.7	378.4
Leicester UA	380.6	334.4
Nottingham UA	384.5	340.0
Rutland UA	388.1	455.5
Derbyshire	354.8	371.6
Amber Valley	356.4	367.1
Bolsover	345.5	317.2
Chesterfield	354.6	340.4
Derbyshire Dales	327.5	417.4
Erewash	348.8	381.8
High Peak	355.0	393.2
North East Derbyshire	332.0	382.6
South Derbyshire	375.2	379.8
Leicestershire	375.3	397.4
Blaby	381.4	425.8
Charnwood	398.1	403.3
Harborough	372.8	421.8
Hinckley and Bosworth	354.5	370.0
Melton	314.9	335.2
North West Leicestershire	398.5	398.9
Oadby and Wigston	337.8	378.9
Lincolnshire	348.3	364.1
Boston	345.0	308.9
East Lindsey	315.5	328.0
Lincoln	371.0	371.0
North Kesteven	335.2	363.5
South Holland	344.9	379.6
South Kesteven	339.5	391.4
West Lindsey	357.0	363.2
Northamptonshire	383.3	401.0
Corby	370.2	355.6
Daventry	403.2	476.5
East Northamptonshire	337.8	446.5
Kettering	383.1	403.3
Northampton	388.9	387.8
South Northamptonshire	392.6	425.3
Wellingborough	382.6	354.9
Nottinghamshire	372.7	395.5
Ashfield	420.0	358.3
Bassetlaw	368.7	383.4
Broxtowe	371.1	447.9
Gedling	420.7	399.5
Mansfield	318.9	354.6
Newark and Sherwood	332.4	360.5
Rushcliffe	339.1	460.0

Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

Note: ASHE does not include self-employed people. The calculations include full-time and part-time employees together.

As noted in the previous section, it is instructive to look at differences in pay levels in local areas according to whether the workplace- or residence-based data are investigated. For example, it is straightforward to imagine the situation where an

area is (relatively) low-paid in terms of the jobs located in that area, but where residents are (relatively) high-paid. A classic example of this might be a rural area, where a significant number of residents commute to jobs in an urban area.

At the aggregate level of the East Midlands, there is little difference between the workplace based and the residence based measures at the median. Looking at individual local authority districts can show departure from the regional figures. For example:

- the median weekly pay for all employees in Daventry is £403.2 for the work-based measure and £476.5 for the residence-based measure.⁹ However, the gap is much smaller when only male employees are considered. Median pay is £503.1 for the work-based measure and £540.4 for the residence-based measure. The median pay for female employees is £275.3 for the work-based measure and £381.2 for the residence based measure. The large difference between the figures for female employees may be due, in part, to differences in the incidence of full-time and part-time working; and
- in East Lindsey the median weekly pay for all employees is £315.5 for the work-based measure and £320.8 for the residence-based measure.

It is salient to note from a policy perspective that gross weekly pay levels are particularly low in East Lincolnshire. Weekly pay also tends to be low in the coalfield area.

3.10 Estimates of income at the micro area level

Turning to a finer level of spatial disaggregation, a range of experimental statistics on incomes from the model-based estimates of average household income are available from Neighborhood Statistics (see:

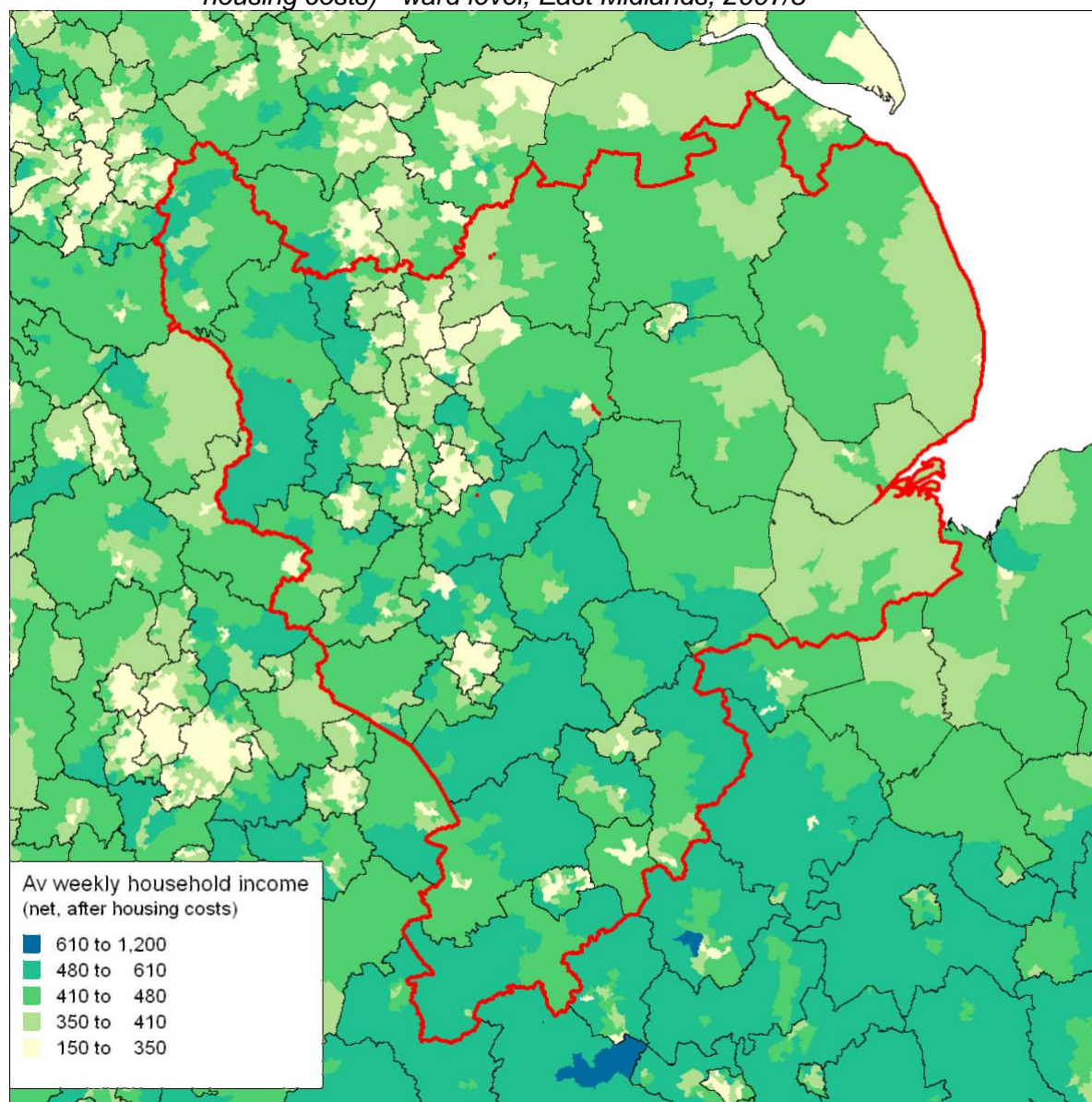
<http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?page=news/newsitems/income-model-based-estimates.htm>)

The data do not provide information on whether individuals in households are in work or not, but the experimental statistics do provide insights into micro area variations in income. It should be noted, as mentioned in Chapter 2, that household income is derived from a variety of sources, but that the main component for many households is earnings.

Figure 3.18 shows *average weekly household net income estimate (equivalised after housing costs)* for households for 2007/8 (the latest year available) at the ward level in the East Midlands. It is clear that such household net income estimates are lowest in the coalfield area, East Lincolnshire and the main cities. Figure 3.19 places the East Midlands in a broader national (England and Wales) context on the same measure. This highlights higher household net income estimates in the area to the west of London.

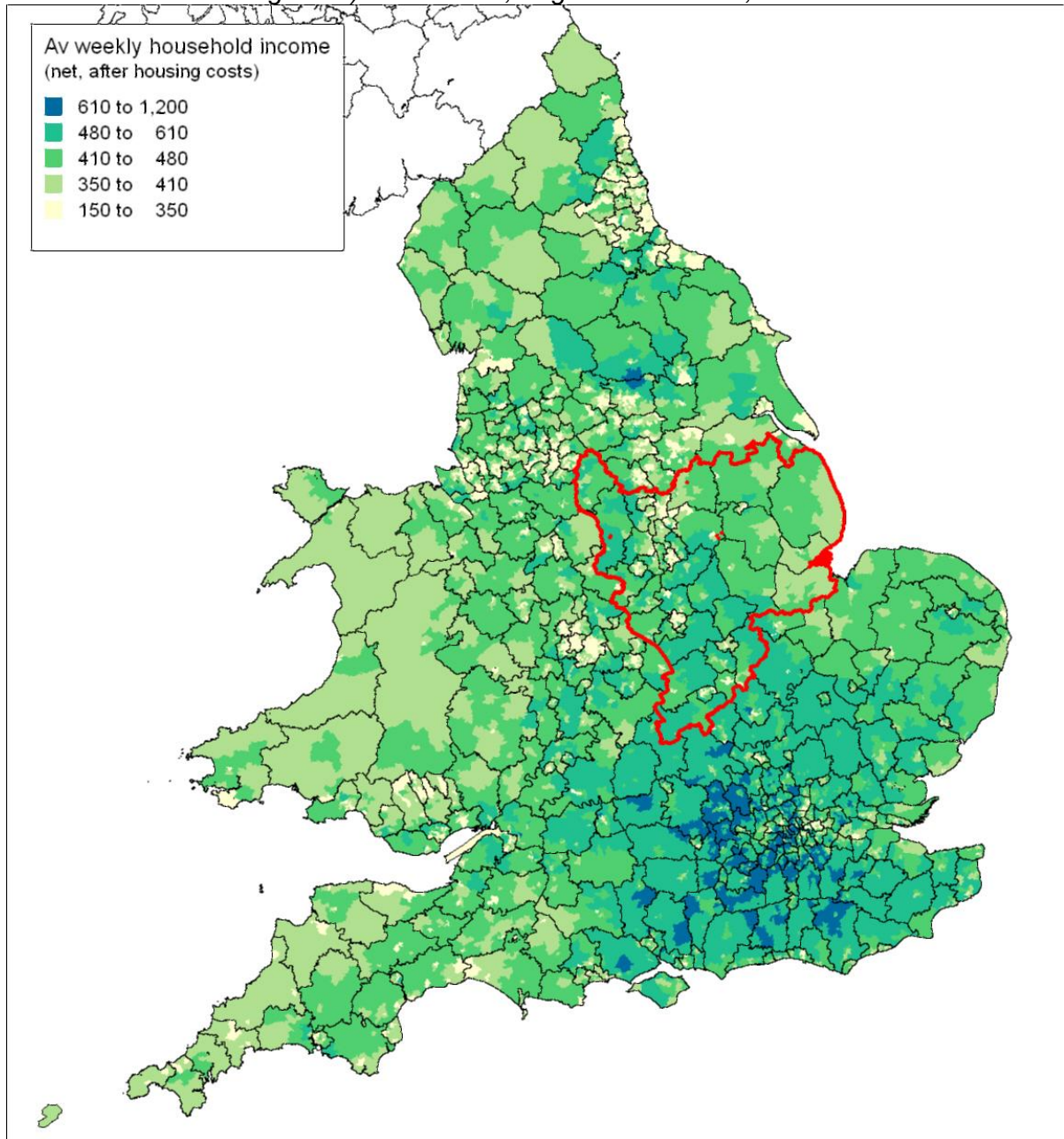
⁹ It is also worth noting that the local authority district varies in terms of the total number of jobs according to the two different measures. There are approximately 31,000 employees who live in the district, compared with approximately 23,000 employees who work in the district. Also, the supporting data are not reported here.

Figure 3.18 Average household weekly net income estimates (equivalised after housing costs) - ward level, East Midlands, 2007/8



Source: Model-based estimates of average household income – Experimental Statistics via Neighbourhood Statistics - see: <http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?page=news/newsitems/income-model-based-estimates.htm>.

Figure 3.19 Average household weekly net income estimates (equivalised after housing costs) – ward level, England and Wales, 2007/8



Source: Model-based estimates of average household income – Experimental Statistics via Neighbourhood Statistics see: <http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?page=news/newsitems/income-model-based-estimates.htm>.

3.11 In-work poverty in the East Midlands

The previous sections of this chapter have provided a detailed insight into the extent and nature of low-paid employment within the East Midlands. Whilst earnings from employment are an important source of income and are likely to be highly correlated

with poverty, these measures do not explicitly consider the conditions of people living within the East Midlands.

3.11.1 Measurement of in-work poverty

Households Below Average Income (HBAI) data are derived from the Family Resources Survey (FRS) and are regarded as the key data set for analyses of poverty. During 2007/08, the FRS completed full interviews with 23,121 households in Great Britain and 1,861 households in Northern Ireland. The HBAI uses household disposable incomes, after adjusting for the household size and composition, as a proxy for material living standards. In addition to including variables on household composition and economic activity, it contains unadjusted income variables, but more importantly, it contains 'equivalised' income, i.e. the household income is adjusted according to the composition of the household, making it easier to compare household incomes in relation to household needs.

The basic unit of analysis within the HBAI data set is the benefit unit. A benefit unit (or what is referred to below as a 'family'), is a single adult or a couple, together with any dependent children. An adult living in the same household as his or her parents, for example, is a separate benefit unit from the parents. A household is a single person or group of people living at the same address as their only main residence, who either share one meal a day together, or share the living accommodation (i.e. the living room). A household may therefore consist of one or more benefit units. Therefore, while the FRS in 2007/8 achieved interviews with approximately 25,000 households, these interviews covered some 29,000 benefit units. However, a key assumption made in HBAI is that all individuals in the household benefit equally from the combined income of the household. Within the HBAI, all benefit units within a household are therefore allocated the same equivalised household income. This enables the total equivalised income of the household to be used as a proxy for the standard of living of each household member.

The analysis that follows therefore defines in-work poverty as *the number of people in private households where at least one person is in employment and where the equivalised household income of that benefit unit (family) falls beneath a particular level*. There are limitations to this approach. As alluded to above, somebody who is in work and relatively well paid may be defined as being in poverty if they share a household with other benefit units that have relatively low levels of income. Conversely, a benefit unit that is poorly paid but shares a household with other benefit units that have relatively high levels of income may not be defined as being in in-work poverty.

Within publications based upon the HBAI, figures are presented on the number of people living in households that have income below certain thresholds of median income, with results being typically presented for less than 50 per cent, less than 60 per cent and less than 70 per cent of median income. Of these measures, the principal marker of low income is generally regarded as being the number of people living in households with less than 60 per cent of median income and so this is the definition that we adopt in the analysis of in-work poverty within the East Midlands that follows.

Estimates of the number of people living beneath HBAI income thresholds are presented both before and after housing costs. This is principally to take into account variations in housing costs that themselves do not correspond to comparable variations in the quality of housing. Any income measure which does not deduct housing costs will overstate the living standards of individuals whose housing costs

are high relative to the quality of their accommodation (for example for some residents of London). In the context of the East Midlands where the cost of accommodation is relatively low, failure to take in to account housing costs could understate the living standards of those living in the region.

3.11.2 Analysis of HBAI data

The analysis in this section presents estimates of trends in the incidence of in-work poverty in the East Midlands from 1994/5 onwards. Following the analysis of trends in in-work poverty, we then consider the situation within the East Midlands in further detail. The size of the FRS sample is relatively small which is problematic in terms of undertaking an analysis of poverty within a sub-set of the population (i.e. in-work households) that also focuses upon a particular region of the UK. To overcome problems associated with the relatively small size of the FRS, this more detailed analysis is based upon a pooled data set of three years of HBAI data, covering the period 2005/6 to 2007/8.

The analysis firstly considers what characteristics are associated with individuals being more likely to live in in-work families with relatively low levels of income and whether the importance of these characteristics differ between the East Midlands and the UK more widely. We then consider the relative composition of in-work poverty in the East Midlands compared to the United Kingdom as a whole.

Figure 3.20 presents information on the proportion of individuals living in in-work families which have levels of equivalised income that are less than 60 per cent of median income for the UK (or Great Britain prior to 2002/3).

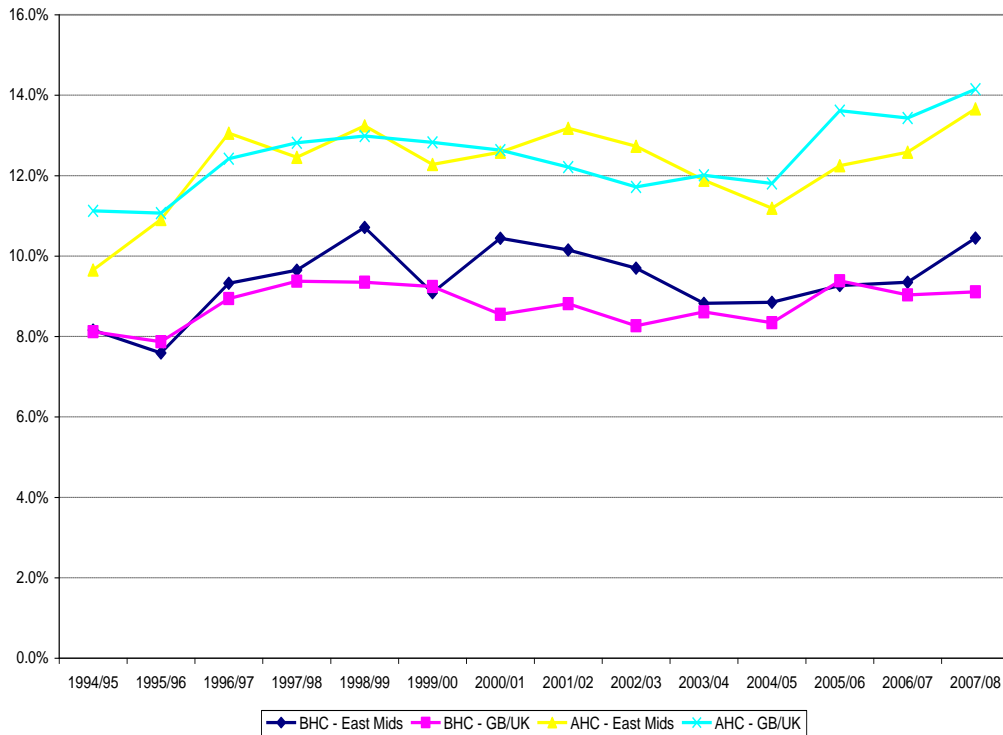
Based on the HBAI data, in 2007/08 10.5 per cent of East Midlands individuals living in working families lived below the poverty threshold before housing costs. This is compared to the UK average of just over 9 per cent. For the same year, the proportion of people living in working families but below the poverty threshold was just under 14 per cent after housing cost in the East Midlands compared to the UK average of just over 14 per cent.

It can be seen that from the second half of the 1990s until 2007/08, the incidence of poverty among people living in in-work families in Great Britain/the UK¹⁰ was approximately 9 per cent before housing costs without any significant fluctuations. However, after housing costs, the proportion of people living in working families but still being below the poverty threshold appeared to increase from just under 12 per cent to just over 14 per cent between 2004/05 and 2007/08 in the UK.

Figures for the East Midlands are generally comparable, although more variable, which probably reflects the relatively small samples sizes upon which these annual estimates are based (approximately 1,300 observations per annum). In terms of the after housing cost series, in the East Midlands there has been a gradual increase since 2004/05 in the proportion of people in in-work families that are in poverty from around 11 per cent to around 14 per cent.

¹⁰ Great Britain is the relevant comparator prior to 2002/03. After this date the UK is the comparator.

Figure 3.20: Percentage of individuals living in working families with an equivalised household income less than 60 per cent of the UK median household income before and after housing costs, comparing the East Midlands with the UK average (1994-2008)



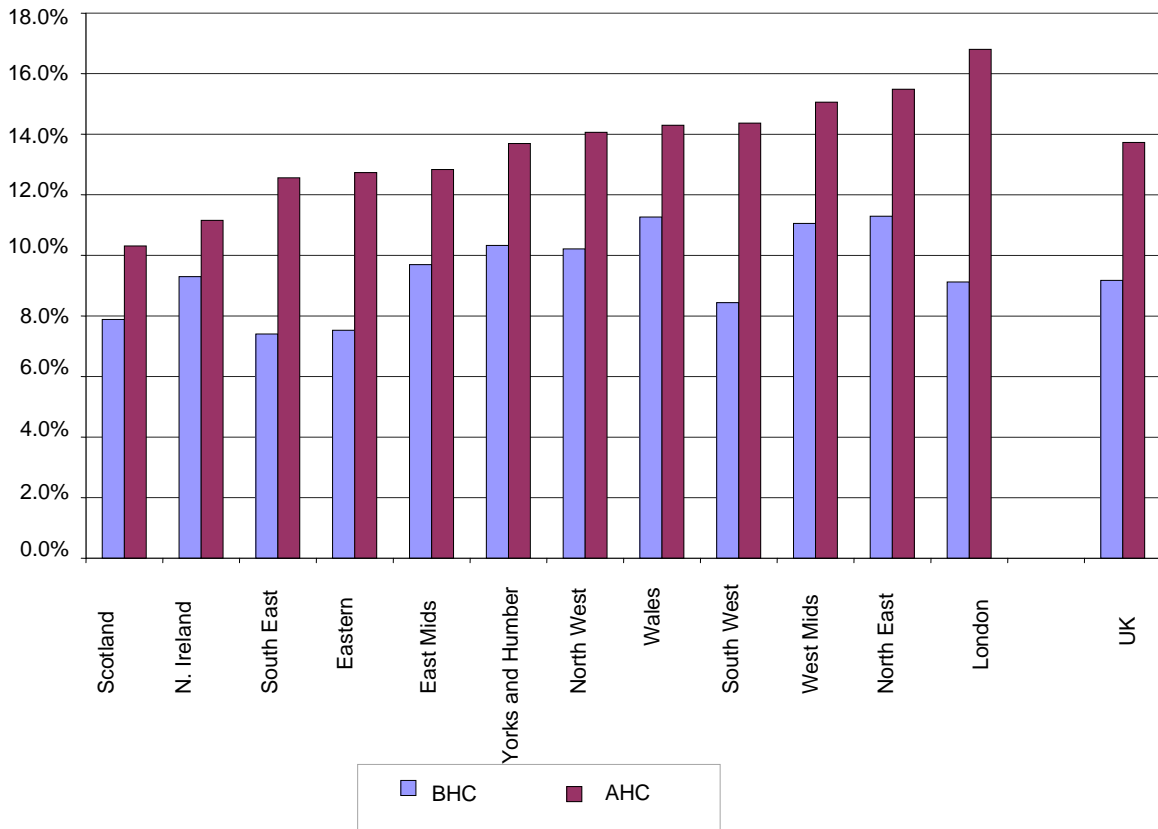
Source: Households Below Average Income, 1994-2008, Office for National Statistics.

Note: The national comparator is the UK after 2002/03. Prior to this date, the comparator is Great Britain.

Regional variations in the incidence of in-work poverty are presented in Figure 3.21. These figures are based on the pooled data set covering the period 2005/6 to 2007/8. The East Midlands has a relatively ‘average’ position compared to other areas of the UK. Before housing costs, approximately 10 per cent of people in the East Midlands living within in-work families have levels of equivalised household income that are less than 60 per cent of the median level of income. This places the East Midlands in 6th place in terms of the incidence of in-work poverty. After taking into account housing costs, the proportion of people living in in-work families that are classified as poor is 13 per cent. The ranking of the East Midlands declines to 8th, reflecting the relatively cheap costs of accommodation within the region.

The effect of the treatment of housing costs in the analysis of in-work poverty is most clearly demonstrated within those regions in the south of England, including London, the South West, the South East and the East. For example, the high costs of accommodation within London increase the incidence of poverty among those in work from 9 per cent to 17 per cent.

Figure 3.21: Percentage of individuals living in working families with an equivalised household income less than 60 per cent of the UK median household income before and after housing costs, by region (pooled data 2005/6 to 2007/8)



Source: Households Below Average Income, 2005/6 and 2007/8, Office for National Statistics.

The relative characteristics of those people living in in-work poverty as defined by the 60 per cent median income threshold are presented in Table 3.2. Considering household income after housing costs, it can be seen that in-work poverty is increasingly prevalent in families (or benefit units) within the East Midlands that:

- are headed by women (16.2 per cent) compared to men (11.6 per cent);
- are headed by young people (aged 16-29: 14 per cent) compared to older people (8.7 per cent);
- are headed by a non-white person (24.4 per cent);
- are headed by a lone parent (20.1 per cent);
- contain couples where only one person works, whether it be full-time (21.3 per cent) or in particular, part time (28.9 per cent);
- have higher numbers of dependent children (two or more: 19.7 per cent, none: 9.4 per cent).

There is no evidence of a particular group of people in the East Midlands as being more likely to be in in-work poverty compared to the UK.

Finally, the relative composition of those individuals who are living in in-work poverty families is presented in Table 3.3. Within the East Midlands, approximately two-thirds of such individuals are in families that are headed by males and that contain two adults. Approximately half are in families that have two or more dependent

children and three quarters are in families that are headed by whites. In terms of family types, couples with children account for approximately half of people living in in-work poverty. It is also notable that one of the most marked differences between the East Midlands and the UK is the higher levels of in-work poverty in the East Midlands where in a couple only one individual is in work. This is likely to reflect relatively low wage levels in the East Midlands, suggesting that an additional work income is important in raising couples out of poverty.

Table 3.2: *Percentage of individuals living in in-work families who are in poverty by selected family characteristics, East Midlands and UK*

Family Characteristics	Before Housing Costs		After Housing Costs	
	East Midlands	United Kingdom	East Midlands	United Kingdom
Gender of Head				
Male	8.9%	8.8%	11.6%	13.0%
Female	11.8%	10.1%	16.2%	15.5%
Age of Head				
16-29	8.5%	8.2%	14.0%	14.7%
30-50	10.3%	9.8%	14.1%	15.0%
50+	8.9%	8.4%	8.7%	9.5%
Number of Dependent Children				
0	6.5%	6.5%	9.4%	9.4%
1	8.6%	8.6%	14.6%	14.4%
2+	13.1%	13.2%	19.7%	19.7%
Ethnicity of Head				
White	8.2%	8.0%	11.2%	11.9%
Non-White	20.2%	16.2%	24.4%	24.6%
Family Type				
Couple with children	12.5%	11.7%	16.0%	17.3%
Couple without children	5.3%	5.9%	7.0%	8.4%
Lone Parent	14.3%	11.0%	20.1%	21.7%
Single without children	8.2%	7.3%	13.3%	11.4%
Other	7.6%	7.3%	6.3%	7.7%
Economic Status				
One or more self employed	17.0%	19.0%	20.8%	24.6%
Single/couple all in full time work	2.5%	2.4%	4.4%	4.3%
Couple/one in full time, one part time	3.5%	2.8%	6.0%	5.9%
Couple, one full time one not working	16.1%	12.9%	21.3%	21.4%
No full time, one or more part time	24.4%	21.7%	28.9%	29.6%
All	9.7%	9.2%	12.8%	13.7%
Sample	3,756	51,479	3,756	51,479

Source: Households Below Average Income, 2005/6-2007/8, Office for National Statistics.

Table 3.3: Composition of individuals living in in-work poverty families by selected family characteristics, East Midlands and UK

	Before Housing Costs		After Housing Costs	
	East Midlands	United Kingdom	East Midlands	United Kingdom
Gender of Head				
Male	67.3	67.9	66.2	67.3
Female	32.7	32.1	33.8	32.7
Age of Head				
16-29	14.9	16.2	18.6	19.5
30-50	64.0	63.5	66.0	65.2
50+	21.0	20.3	15.4	15.3
Number of Dependent Children				
0	32.4	34.4	32.7	33.9
1	16.2	17.3	19.4	17.0
2+	51.3	48.4	47.9	49.2
Ethnicity of Head				
White	73.8	75.0	76.1	74.7
Non-White	26.2	25.0	24.0	25.3
Family Type				
Couple with children	58.2	58.1	56.4	57.4
Couple without children	14.7	16.3	14.7	15.5
Lone Parent	9.0	7.3	9.5	9.6
Single without children	13.7	13.8	16.7	14.3
Other	4.4	4.5	2.8	3.2
Economic Status				
One or more self employed	19.4	28.1	17.9	24.3
Single/couple all in full time work	9.6	9.4	12.6	11.3
Couple/one in full time, one part time	7.5	6.3	9.6	8.6
Couple, one full time one not working	30.0	23.4	30.0	25.9
No full time, one or more part time	33.5	32.8	30.0	29.9
All	100	100	100	100
Sample	332	4,571	452	6,252

Source: Households Below Average Income, 2005/6-2007/8, Office for National Statistics.

3.12 Receipt of tax credits

Turning to another data source to provide insights into in-work poverty, this section utilises tax credit data. As was mentioned in Chapter 2, receipt of tax credits provides a possible indication of in-work poverty, but must be treated with considerable caution. In this section, we briefly expand on some of the information presented in Chapter 2 to provide a more detailed context for the findings that follow. The tax credits system consists of two elements. First, Child Tax Credit (CTC)

provides support to families for the children for which they are responsible and can be received by families who are out of work as well as in work. Working Tax Credit (WTC) tops up the earnings of families on low or moderate incomes. People working for at least 16 hours a week can claim it if they:

- a) are responsible for at least one child or qualifying young person;
- b) have a disability which puts them at a disadvantage in getting a job; or
- c) are in the first year of work, having returned to work aged at least 50 after a period of at least six months receiving out-of-work benefits.

Other adults qualify if they are aged at least 25 and work for at least 30 hours a week. The tax credits system is highly complex, based on various entitlement elements, income thresholds and so on (for a helpful introductory guide see: <http://www.litr.org.uk/help/lowincome/taxcredits/working.cfm#ctc>).

Data on receipt of tax credits are published by HM Revenues and Customs, most recently as HM Revenue and Customs Child and Working Tax Credits Statistics December 2009 <http://www.hmrc.gov.uk/stats/personal-tax-credits/cwtc-dec09.pdf>. The estimates for in-work families are based on data for a random sample of families with awards at a specified reference date, extracted from the tax credits computer system on that date. The national statistical analysis includes various breakdowns of receipt of tax credits for example by age, gender, number of children in the family and incomes of recipient families. A regional analysis is provided which gives numbers of:

- all recipient families;
- in-work and out of work recipients;
- those without children receiving WTC;
- numbers receiving WTC and CTC; and
- if receiving CTC only then receiving more than the family element, the family element or less than the family element (the family element is the basic component of the CTC and is near-universal, being paid to all except the 10% of families with the highest incomes (MacInnes and Kenway, 2009)).

The main reason for the distinction between those receiving more or less than the family element of CTC is that it provides a good proxy for the level of tax credit award. However, it is important to note that the June 2010 Budget announced a number of changes in relation to the tax credit and benefit system.

Geographical analyses of tax credit data are published separately, most recently as HM Revenue and Customs Child and Working Tax Credits Geographical Analyses, December 2009 <http://www.hmrc.gov.uk/stats/personal-tax-credits/cwtc-geog-stats.htm>. Analysis is provided by Government Office Region, County, Local Authority and Parliamentary constituency. However, geographical analyses are based only on the headings in the bullet points in the preceding paragraphs - i.e. the further detail in the national level analysis is not included.

In their analysis of poverty in London, MacInnes and Kenway (2009) used receipt of CTC and WTC, by in-work families, as an indicator of 'low working incomes'. In that analysis, out-of-work families were excluded as were families who only get the near-universal family element of CTC (see above). To demonstrate scale, MacInnes and Kenway (2009) expressed the number of families in London receiving tax credits (with the preceding caveats) as a proportion of households in the 2001 Census of Population. They noted some shortcomings in this approach - i.e. it is families that receive tax credits but households can contain more than one family, and while the

2001 Census is the most reliable estimate of numbers of households, numbers will have changed since the Census. In addition, the data do not provide detail of actual levels of entitlements nor household income. People who are entitled to tax credits because of low income but have not claimed will also not be included.

For comparative purposes, and using 2008 tax credits data, MacInnes and Kenway applied the same methodology for each of the English regions with results provided in Figure 2.2 above, showing the proportion of in-work working-age families by region receiving tax credits in 2009.

In the light of the above, the tax credits data analyses here are presented for contextual and broad indicative purposes only, and reflect the pre-June 2010 conditions of the tax credit and benefit system. Table 3.4 presents the count of the number of households with children with CTC more than the family element plus households without children in receipt of tax credits (i.e. a composite measure) by unitary and local authority district in the East Midlands in 2009. The count is then expressed in three different ways as a ratio of the population at risk: first, as a percentage of all households in the 2001 Census (see Figure 3.22); secondly, as a percentage of all families in the 2001 Census (see Figure 3.23); and thirdly, as a percentage of all households in 2006 according to the DCLG Household Projections for 2006 (see Figure 3.24).¹¹ Families are used as an alternative denominator to households because the latter include people who do not have children or do not live with children. However, there are no local data on the number of families more recent than 2001. Using households enables change in the population and household total since 2001 to be taken into account. The percentages for households are similar, while the percentage for families is higher (as indicated in the discussion above).

The figures show that families or households living in cities, the coalfield area and parts of the Lincolnshire coast are more likely to receive tax credits than families or households living in other areas of the region.

¹¹ The measure of households in 2001 is the number of household reference persons in each local authority district, taken from cell 1 of Standard Table 5 of the 2001 Census of Population. The number of families is the number of family reference persons, taken from cell 1 of Standard Table 6 of the 2001 Census of Population. The estimated number of households in 2006 is taken from the Department for Communities and Local Government 2006-based projections of household numbers by local authority district and Government Office Region of England for 2006 to 2031. See: <http://www.communities.gov.uk/housing/housingresearch/housingstatistics/housingstatisticsby/householdestimates/livatables-households/>.

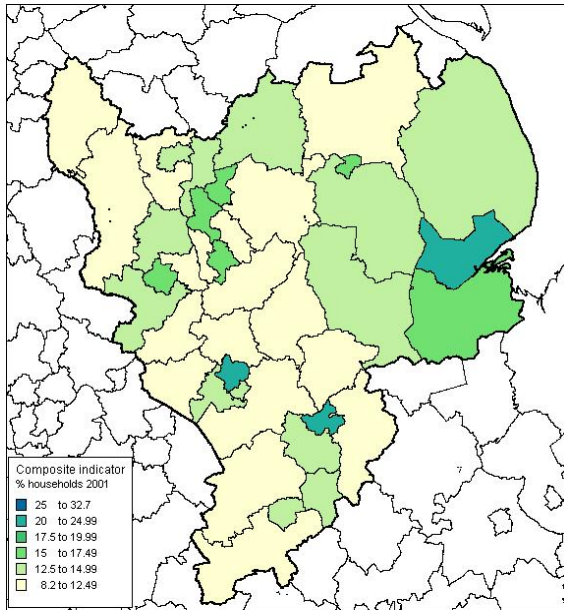


Figure 3.22: Tax credit receipt as a percentage of households (based on 2001 Census)

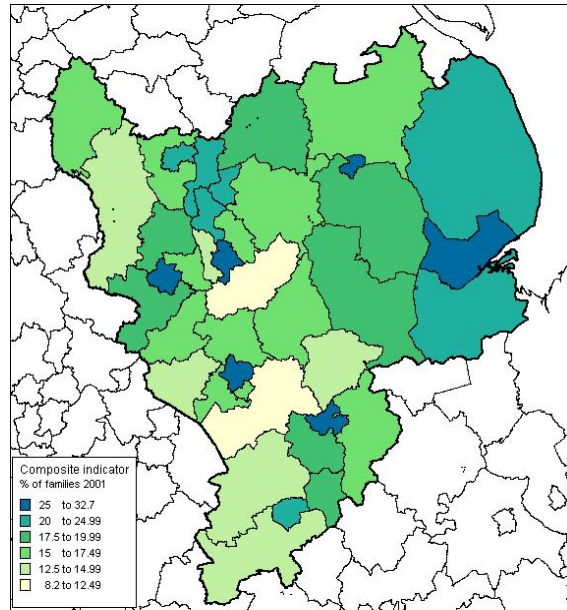


Figure 3.23: Tax credit receipt as a percentage of families (based on 2001 Census)

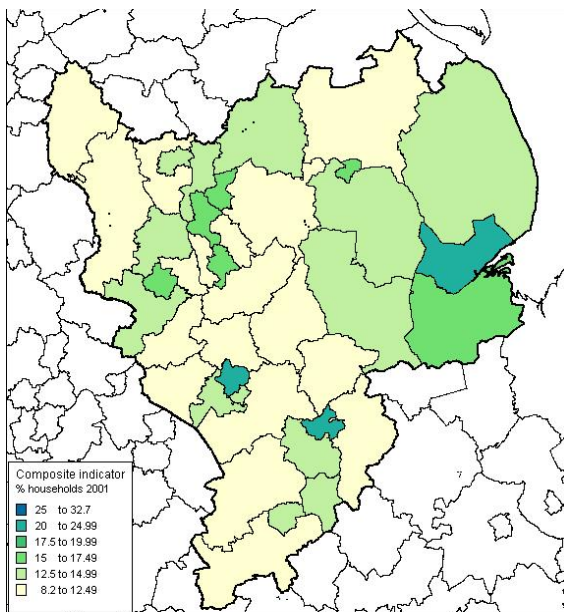


Figure 3.24: Tax credit receipt as a percentage of households (based on DCLG Household Projections for 2006)

Note: The numerator is the count of the number of households with children with CTC (more than the family element) plus households without children but in receipt of tax credits.

Source: HMRC Child and Working Tax Credits Geographical Analyses, December 2009; 2001 Census (for Figures 3.22 and 3.23); DCLG Household Projections for 2006 (Figure 3.24).

Table 3.4 Percentage of in-work families receiving tax credits, by unitary authority and local authority district (2009)

Area	thousands of households in receipt of in-work tax credits, 2009	% of households, 2001	% of families, 2001	% of households, 2006
EAST MIDLANDS	240.5	13.9	19.8	13.0
Derby UA	15.8	17.1	25.6	15.8
Leicester UA	23.5	21.1	32.7	20.3
Rutland UA	1.3	9.7	13.1	8.7
Nottingham UA	18.1	15.6	27.7	14.4
<i>Derbyshire</i>	<i>39.3</i>	<i>12.7</i>	<i>17.8</i>	<i>12.1</i>
Amber Valley	6.2	12.6	17.6	11.9
Bolsover	4.4	14.5	20.2	13.8
Chesterfield	6.2	14.3	21.2	13.8
Derbyshire Dales	2.9	10.0	14.0	9.7
Erewash	5.5	11.9	16.7	11.5
High Peak	4.6	12.4	17.3	11.8
North East Derbyshire	4.7	11.5	15.8	11.2
South Derbyshire	4.5	13.6	18.3	12.2
<i>Leicestershire</i>	<i>28.8</i>	<i>11.7</i>	<i>15.9</i>	<i>11.0</i>
Blaby	4.6	12.8	16.8	12.1
Charnwood	7.4	12.2	17.2	11.4
Harborough	2.8	9.1	12.1	8.5
Hinckley and Bosworth	4.6	11.2	15.0	10.5
Melton	2.3	11.7	15.9	11.0
N W Leicestershire	4.2	11.9	16.2	11.1
Oadby and Wigston	2.8	12.8	17.3	12.2
<i>Lincolnshire</i>	<i>39.9</i>	<i>14.7</i>	<i>20.5</i>	<i>13.5</i>
Boston	4.9	20.4	29.1	19.6
East Lindsey	8.1	14.6	20.2	13.3
Lincoln	5.9	16.1	25.3	15.1
North Kesteven	5.3	13.6	18.4	12.3
South Holland	5.2	15.9	21.6	14.9
South Kesteven	6.6	12.8	17.6	12.0
West Lindsey	4	12.2	16.5	11.1
<i>Northamptonshire</i>	<i>34.5</i>	<i>13.3</i>	<i>18.8</i>	<i>12.2</i>
Corby	4.4	20.0	28.3	19.1
Daventry	2.8	9.7	12.9	8.8
East Northamptonshire	3.9	12.5	17.1	11.1
Kettering	4.8	13.9	19.8	12.6
Northampton	11.3	14.0	20.8	13.1
South Northamptonshire	3	9.5	12.5	8.3
Wellingborough	4.2	14.0	19.8	13.1

continued

Area	thousands of households in receipt of in-work tax credits, 2009	% of households, 2001	% of families, 2001	% of households, 2006
<i>Nottinghamshire</i>	39.3	12.5	17.6	11.9
Ashfield	7.2	15.4	21.4	14.4
Bassetlaw	6	13.4	18.6	12.5
Broxtowe	4.7	10.3	14.8	9.8
Gedling	5.7	12.0	16.9	11.6
Mansfield	6.5	15.6	22.1	15.1
Newark and Sherwood	5.5	12.4	17.1	11.5
Rushcliffe	3.7	8.5	12.0	8.2

Source: HMRC Child and Working Tax Credits Geographical Analyses, December 2009; 2001 Census; DCLG Household Projections 2006.

Table 3.4 ranks the local authority areas on the third of these measures. Leicester with 20.3 per cent of the region's in-work families receiving tax credits, Boston (19.6 per cent), and Corby (19.1 per cent) record the highest proportions. The major cities also have above average proportions of households in receipt of in-work tax credits, along with the Lincolnshire coast and coalfield area. The lowest percentages of households in receipt of in-work tax credits are found in Rushcliffe, South Northamptonshire, Harborough and Rutland.

3.13 Concluding comments

Based upon a variety of derivations, the incidence of low-paid employment in the East Midlands is higher than that observed across the country as a whole. Approximately 14-18 per cent of those in work in the region have hourly earnings that are less than 60 per cent of median hourly earnings. This level of low-paid employment is generally comparable to more peripheral areas of the UK, such as Wales, Scotland, the North and Yorkshire and Humberside.

Women and the young are at the greatest risk of being employed within low-paid jobs. The composition of those in low-paid employment within the East Midlands reflects the sectoral and occupational profile of the region.

Retail, hospitality and social care account for the largest proportions of low-paid employment within the region, although the proportion of low-paid work accounted for by food processing is larger than that observed within the UK as a whole.

Within the region, Lincolnshire exhibited the highest incidence of low-paid work, both in terms of the location of workplaces and people's homes. City areas were characterised by the relatively high incidence of people in low-paid work who live in these areas. However, the relative incidence of low-paid work located in these areas was relatively small.

After housing costs, in 2007/08 approximately 14 per cent of individuals living in households where at least one person works are in poverty as defined by the 60 per cent median income threshold. As with low pay, in-work poverty in the East Midlands is relatively similar to that observed in more peripheral regions of the UK. However, the incidence of in-work poverty in the region is reduced when the relatively low costs of accommodation are taken in to account. Ethnic minorities, having dependant

children and couples with only one earner are characteristics that are each associated with being in in-work poverty. However, these risk factors are not unique to the East Midlands.

4. Discussion and investigation of the links between in-work poverty and the region's low pay-low skill equilibrium

This chapter presents findings from the third element of the project: the discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium'.

This chapter includes:

- wage-setting mechanisms and skills development;
- UK employment and training systems;
- the regional low-skill equilibrium; and
- policies to tackle in-work poverty in the UK.

Key points in this chapter are:

- There is an increasingly large body of research which suggests that national systems which protect the wage levels of the less skilled through the provision of training have been beneficial in safeguarding relatively well paid work for a substantial part of the labour market who might otherwise be locked into an individual level, low-skill equilibrium.

- At a regional level, if a low-skill equilibrium develops then not only will it push down wages but it will also, consequently, drive down regional consumption levels; regional domestic demand will fall because employers engaged in low-skill, low value work will have a limited demand for high value intermediate products which might be sourced locally; and employees will have relatively low disposable income to spend on a range of locally produced products and services.

- In 2007, the East Midlands was ranked 5th of the nine English regions in terms of the proportion of its working age population qualified to Level 4 or above

- Although there has been a great deal of up-skilling in the region, demand for these qualifications has not met supply. Therefore, the lack of demand for high level jobs represents a particular challenge.

- Projections suggest that the sectoral and occupational structures of the East Midlands will not change significantly over the medium-term – there is expected to be a continuing demand for labour in low-paid sectors.

- Some aspects of the 'high-road' model of economic development offer useful considerations. These are based on competitive advantage being gained through innovation, enhanced quality of products and services, and up-skilling, with training and continuous workforce development as integral elements.

4.1 Introduction

This chapter presents findings from the third element of the project: the discussion and investigation of the links between in-work poverty and the region's 'low pay-low skill equilibrium'. Doing so requires stepping back from the statistical analysis presented in Chapter 3, and firstly taking a broader, theoretical and policy-based,

overview of relevant issues within a global, EU and national perspective. The chapter then moves to a more specific focus on policy responses.

4.2 Wage-setting mechanisms and skills development

The starting point for this chapter is that countries have adopted differing policy approaches to tackling the issue of low-skilled and unskilled workers. It has been typically assumed that the wage setting institutions across northern Europe – principally that of collective bargaining – have protected the wages of the less skilled, which is reflected in lower levels of wage inequality, by paying them a wage above the market rate. Economic theory suggests that, in itself, such an approach is unsustainable and will result sooner or later in labour shedding. When the demand for labour drops, less skilled workers are more likely to lose their jobs because of the relative cost of employing them. Less skilled workers thereby pay the cost of receiving relatively high wages through unemployment during periods of relatively weak demand (Krugman, 1994).

Conversely, countries such as the UK and USA tend to leave wage levels to the market. Consequently, because wages are responsive to market conditions unemployment will be, other things being equal, lower in these countries and employment levels may be more resistant to any weakening in labour demand. The downside of this policy is that the less-skilled in work may be at risk of poverty depending upon the equilibrium wage level at any point in time, for example, they may be at greater risk of low pay during a recession. The rationale for this approach is that being in employment is generally beneficial. Employment is seen to bring both economic and social benefits, including opportunities to develop skills, and being unemployed increases the chance of experiencing subsequent periods of unemployment and low pay.

This rationale has been challenged by various authors and policy makers. The evidence on national systems relating to wages, skills and employment is, to some extent, speculative, but there is an increasingly large body of research which suggests that national systems which protect the wage levels of the less skilled through the provision of training, have been beneficial in safeguarding relatively well paid work for a substantial part of the labour market who might otherwise be at risk of being out of work or locked into an individual level, low-skill equilibrium.

Authors such as Krueger and Pischke (1997) and Card et al (1999) have compared the situation in the USA (which has similar policies to the UK) with different European countries, and have found that countries with wage setting mechanisms which protect the less skilled have not endured relatively high levels of unemployment amongst this group (Krueger and Pischke, 1997; Card et al, 1999). In fact, levels of unemployment amongst the less skilled have risen faster in the USA (Nickell and Bell, 1996).

The main reason this has occurred relates to the relative skill levels of the less skilled in countries such as the USA, and those in northern European countries such as Germany (McIntosh and Steedman, 2002). Where less skilled workers are paid a wage above that which the market might determine, there is, arguably, a need to raise the productivity of the less skilled workers so that competitiveness is not affected. Consequently, there is an emphasis on raising skill levels through training. In a study comparing the situation in Germany and the USA, Freeman and Schettkat (2000) demonstrated that less skilled workers in Germany had been subject to up-skilling with the result that less skilled German workers were, on average, about as

skilled as averagely skilled American counterparts, and were far better placed to deal with the fall in demand for less skilled work.

This is also reflected in the data on skill mismatches. Evidence suggests that where countries have not raised skill levels, there is a mismatch between the jobs available and the skills in the workforce when there is a pick-up in labour demand. This results in relatively high levels of sustained unemployment amongst the less skilled (Jackman et al, 1997; Manacorda & Petrongolo, 1999). This suggests that countries such as Germany have, through their wage setting mechanisms, been able to achieve a higher equilibrium position with respect to skills and wages. There is still a skill distribution (reflected in the occupational / qualification structure of employment) which is similar to that observed in countries such as the UK, but in each segment of the distribution individuals are more skilled than their counterparts in the UK or the USA.

To some extent this is borne out by the matched plant studies undertaken by the National Institute of Economic and Social Research during the 1990s and early 2000s which revealed the relatively higher levels of skill, and consequently productivity performance, of workplaces in countries such as France, Germany, and the Netherlands compared to those in the UK (Mason et al, 1994; Mason, 2000; Mason and Wagner, 2002).

4.3 The UK employment and training systems

In the context of the current recession the UK has seen less of a rise in unemployment than some other EU countries, which the economic theory outlined above would predict, given their relative wage distributions. However, there are issues about which policies will enable countries to perform best in the recovery period. Alongside the recession, increased globalisation has seen not only low-skilled work, but increasingly higher-skilled work, being outsourced to countries such as China and India, and high added value producers are increasingly locating their production facilities in these countries. Additionally, as indigenous producers in these countries move into high value markets they will not only be able to capture a share of their domestic demand but also export markets too. This transformation in the economic order increasingly places an emphasis upon having a highly skilled workforce which has competitive advantage. How the UK will be able to meet this challenge relates very much to the labour market policies and institutions which have developed over the post-1945 period. In this regard, there are a number of distinguishing features of the UK labour market:

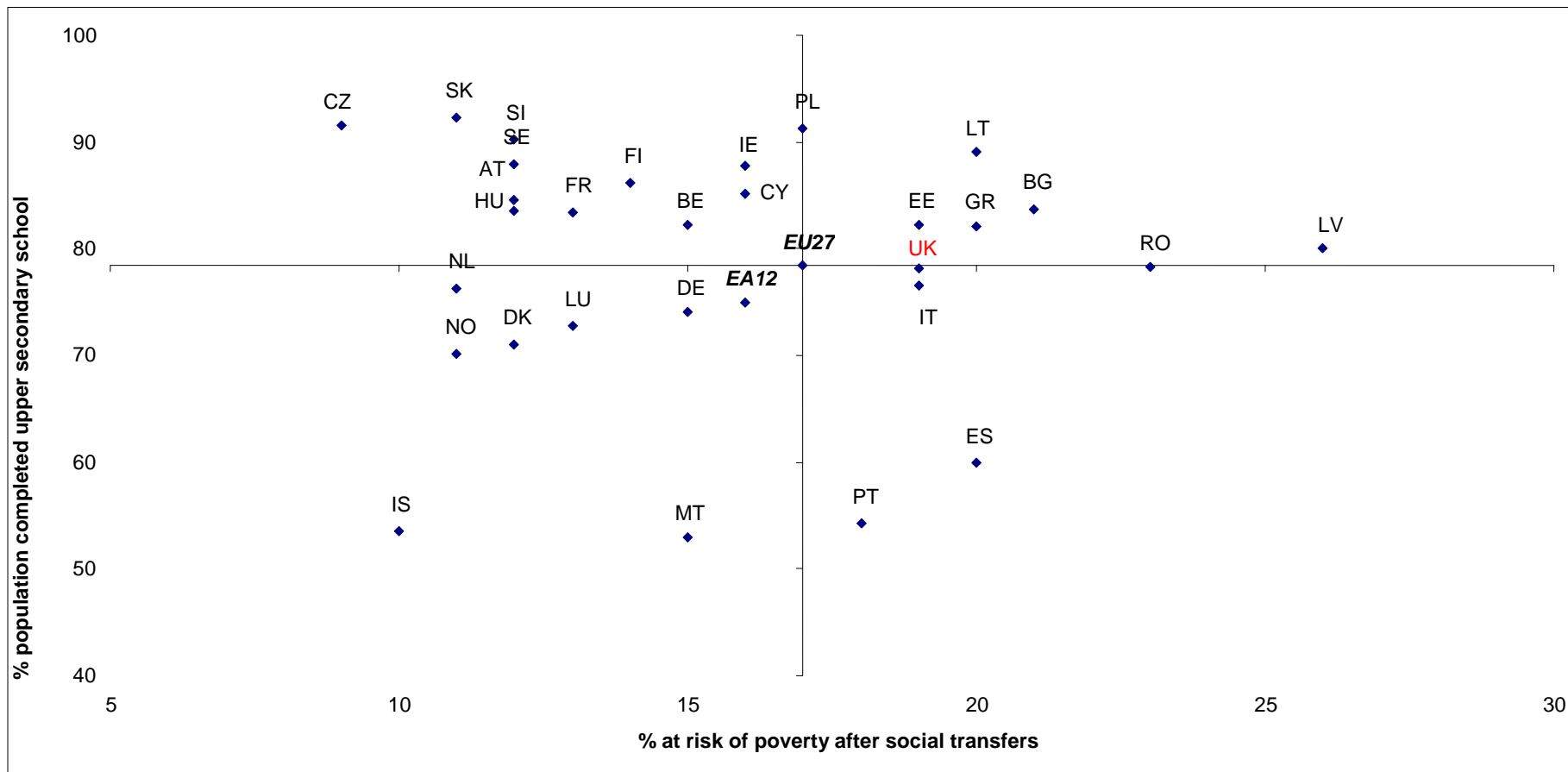
- i. relatively limited employment protection regulation (compared to EU countries such as Germany or France) which makes it relatively easy for employers to hire and fire employees;
- ii. an unemployment benefits system which is oriented towards the provision of means tested, targeted benefits paid at a relatively low rate compared to average wage rates;
- iii. active labour market policy which has been characterised as “work-first” based on a belief that employability is best improved by being in work;
- iv. provision of indirect wage subsidies to employers through a system of tax credits;
- v. limited collective bargaining over wages;
- vi. a vocational and education training (VET) system characterised by voluntarism in that there is little compulsion for either employers or employees to train.

In combination, these policies aim to move people who are economically inactive into work. It has been suggested that the UK's inclusive approach to economic activity results in many people entering the labour market who might, in other countries, be long-term benefit recipients. The UK has relatively high labour-market participation rates and low unemployment rates. However, this also means that the UK tends to have a group of workers who are relatively unproductive, and these workers are included in employment and productivity data, which is not the case for countries with lower labour-market participation rates and higher unemployment rates. Consequently, the UK is more likely to appear to be in a low-skill equilibrium.

Some countries have higher employment and activity rates than the UK, and these are often the ones which reveal relatively high levels of GDP *per capita*. In fact, low levels of economic activity and low employment rates, which are indicators of the extent to which people are included in the labour market, tend to be lowest in the economies of Europe which are amongst the poorest. Therefore, the argument that the UK is a more inclusive labour market, which drives down productivity in comparison with other competitor countries, does not necessarily hold.

Figure 4.1 uses EU data on the extent to which individuals are at risk of poverty after various social transfers have been made to them and cross-classifies this with the percentage of the population which has completed upper secondary school education. The axes in the chart intersect at the average for the EU-27. It shows that the UK has a level of educational attainment which is on a par with countries such as France and Germany, but the risk of poverty is greater than in those countries, making the UK more similar to the Eastern and Southern Member States. This is, in part, attributable to qualitative differences in the provision of post-compulsory VET (Finegold and Soskice, 1988; Hogarth et al, 2009), as well as the proportion of young people who are not in education, training or employment. Policies designed to intervene in these areas might help to move the UK into the upper left quadrant in the graph.

Figure 4.1: Relationship between Skills and Poverty, the UK and Europe Compared



Source: Eurostat Social Cohesion Statistics.

Note: see Annex 4 for country codes.

By pushing people into work the risk is that people will enter into low-wage, low-skill work from which there is little prospect of improvement. The minimum wage and Working Tax Credits aim to off-set some of the social cost of this, but tax credits also allow employers to hire people at a lower wage than they might otherwise be willing to pay, which can have the unintended consequence of generating low-skilled work through two mechanisms:

- i. employers are able to sustain a low-wage product market segment; and
- ii. work which might otherwise be substituted by technology, and thereby foster productivity growth, continues to remain labour rather than capital intensive.

Consequently, it can be seen that the tax credit system increases labour supply (thereby potentially pushing down wages) (Brewer et al, 2003; Blundell et al, 2004), and makes industry more labour intensive and potentially may reduce demand for skills (which militates against productivity or efficiency gains).

To minimise the costs attached to this, active labour market policy and training policy through programmes such as Train to Gain provide employers and employees with a training subsidy designed to increase skill levels. Such training, leading mainly to Level 2 qualifications (Level 3 in some situations), is designed to push employers into higher value-added markets and employees into potentially higher-waged work.

The initial evaluation evidence suggests that Train to Gain has had a positive impact on the volumes of training undertaken by employers (IFF/IER, 2008), but whether this is sufficient to raise Britain out a low-skill equilibrium is difficult to assess.

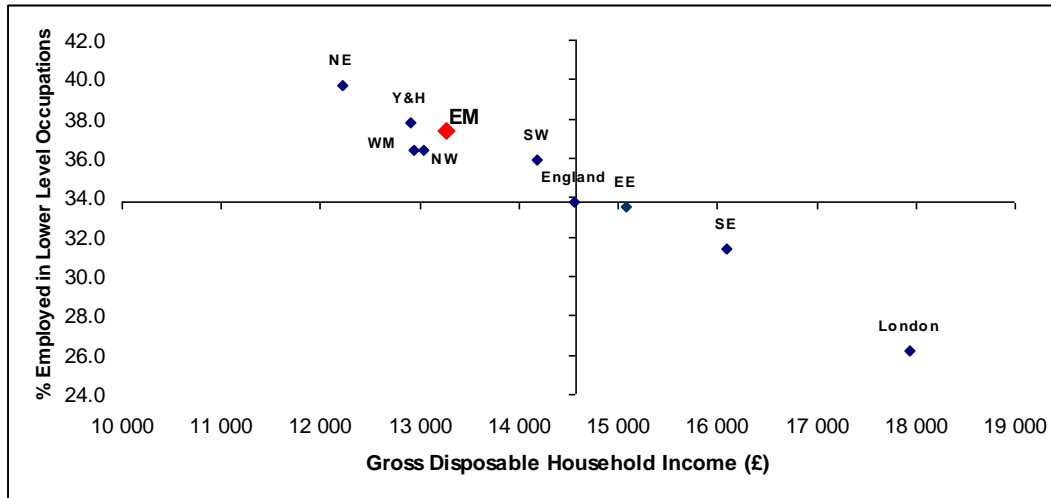
4.4 A regional low-skill equilibrium?

At a regional level, if a low-skill equilibrium develops then not only will it push down wages but will also, consequently, drive down regional consumption levels. Regional domestic demand will fall because employers engaged in low-skill, low value work will have a limited demand for high value intermediate products which might be sourced locally, and employees will have relatively low disposable income to spend on a range of locally produced products and services. Moreover, the more a region lags behind the national or international average the more difficult it is to make up lost ground.

4.4.1 Evidence from the East Midlands

The degree to which any economy is in a low-skill equilibrium is dependent upon how it compares with other areas and the extent to which it is lodged in that position. Figure 4.2 compares the position of the East Midlands to other regions in England. It shows that, compared with the England average, the East Midlands has a higher than average percentage of people employed in lower level occupations (i.e. personal service, sales, operative, and elementary occupations) and, consequently, a higher than average percentage of households with lower than average disposable income.

Figure 4.2 Occupational Structure and Household Disposable Income in England and the East Midlands (2007)



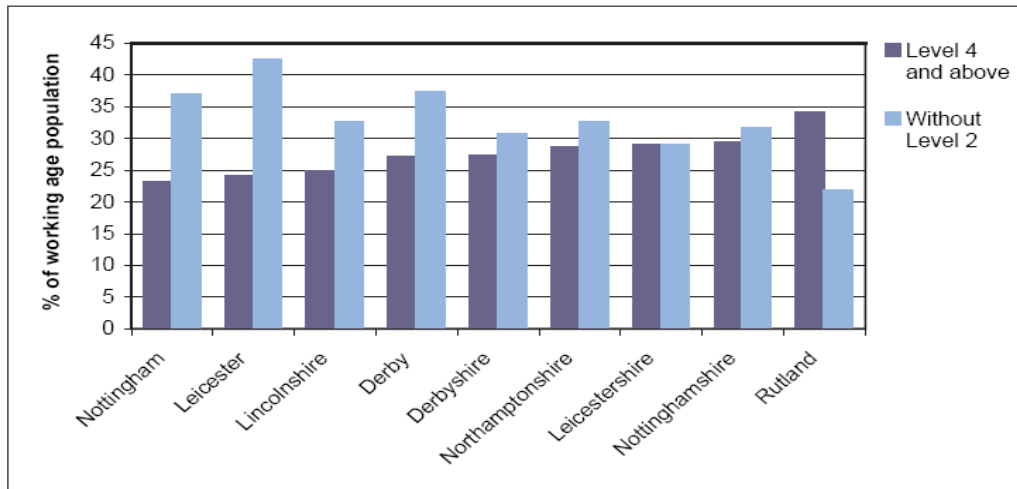
Source: ONS GDHI Series/Working Futures Database.

If it were possible to raise gross disposable income per head to the average for England, this would be an increase of £1,288; from £13,268 a year to £14,556 (2007 prices). This represents a substantial increase in regional spending power with implications for regional consumption. However, the ability of any region or locality to achieve such an increase is severely constrained, and GDHI in the East Midlands has in fact remained relatively stable, at between 91 per cent and 93 per cent of the UK average between 1999 and 2007. Only three of the NUTS3 areas - South Nottinghamshire, Leicestershire and Rutland and Northamptonshire were above the UK average in 2007, while North Nottinghamshire, East Derbyshire, Derby, Leicester and Nottingham all had a GDHI per head of less than 90 per cent of the UK average (*emda*, 2009, pp 161-2 - Updated as 'The East Midlands in 2010').

4.4.2 Skills levels in the East Midlands

In 2007, the East Midlands was ranked 5th of the nine English regions in terms of the proportion of its working age population qualified to Level 4 or above (27.3 per cent, compared to the English average of 30.2 per cent). The proportion of the working age population without Level 2 qualification (including those without any formal qualification) was 32.8 per cent in the East Midlands, compared to 31.1 per cent in England as whole. A high proportion of the workforce with low levels of qualifications, combined with a low proportion of the workforce with high levels of qualifications is concentrated in Leicester, Nottingham, Lincolnshire, and to a certain extent Derby, (Figure 4.3).

Figure 4.3: Qualifications of the working age population in selected areas of the East Midlands



Source: Department for Children, Schools and Families, 'Qualifications and Participation in Learning at a local level: England 2007, Population aged 19-59/64'. Estimates for Rutland are less reliable due to the sample size. Without Level 2 qualification is the sum of those with lower than Level 2 and those with no qualification.

Source: *emda* (2009 p 250, Figure 6.27 – Updated as 'The East Midlands in 2010').

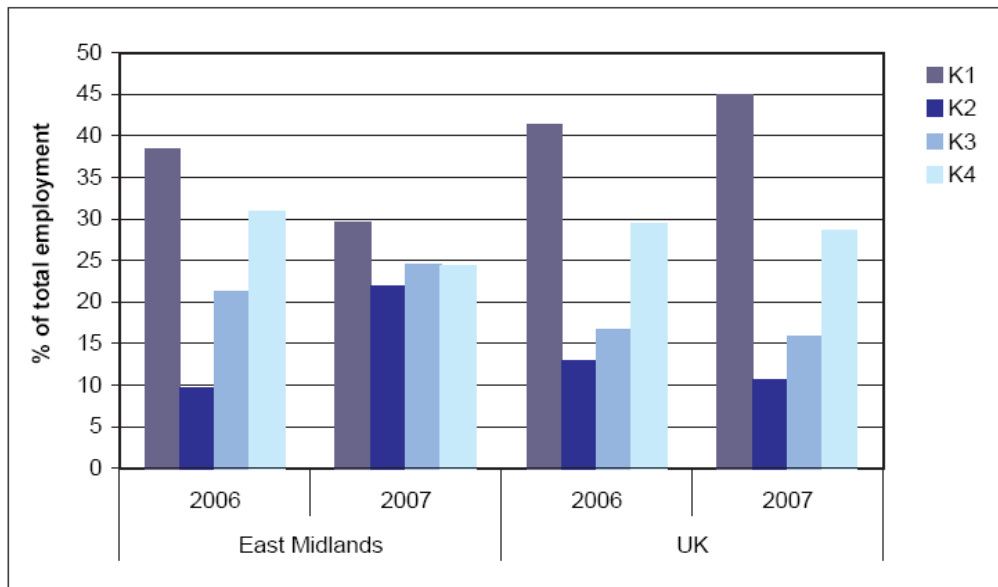
The National Employer Skills Survey in 2007 (NESS, 2007) showed that 20.6 per cent of jobs in the East Midlands were classified as hard to fill. A slightly lower proportion of employers in the East Midlands with hard to fill vacancies said that this was because they had received a low number of applicants with the necessary skills, although this reason was given by 34 per cent of employers with hard to fill vacancies in the East Midlands (compared to an England average of 36 per cent). Lack of appropriate work experience was mentioned by 20 per cent of employers with hard to fill vacancies (compared to 18 per cent of all employers in England with hard to fill vacancies), while 14 per cent reported that they had found their vacancy hard to fill due to a lack of appropriate qualifications in the applicant pool (compared to 12 per cent of all employers in England) (*emda*, 2009, p 243 - Updated as 'The East Midlands in 2010'). This suggests that the picture in the East Midlands is similar to the UK picture as a whole, but also that there are significant areas where policy interventions could be made to improve skills in the region, as discussed below. Manufacturing, Engineering and Construction were areas identified as having hard to fill jobs, and the need to replace skilled employees in these areas due to the ageing workforce was a particular issue.

Although there has been a great deal of up-skilling in the region (the proportion of people with higher level qualifications has increased while the proportion with low or no qualifications has decreased), demand for these qualifications has not met supply. In 2006, 39.1 per cent of employees in the East Midlands reported that their highest qualification was above that necessary to do their job (over-qualification). This is similar to the average in England of 39.4 per cent, but it represents a significant increase on the figures in 1997, where 31.7 per cent of employees in the East Midlands reported that they were overqualified, compared to an England average of 31.4 per cent (*emda*, 2009, pp 247-8 - Updated as 'The East Midlands in 2010').

As Figure 4.4 shows, the proportion of the East Midlands workforce employed in the most knowledge-intensive sectors (K1 sectors designated by the European Commission in 2000 as having more than 40 per cent of their workforce qualified to graduate (Level 4 equivalent) level) has also shown some evidence of decline.

Between 2006 and 2007, the proportion of the East Midlands workforce employed in K1 sectors fell from 38.4 per cent to 29.6 per cent. In the same period, the proportion of all UK workers in this sector rose from 41.2 per cent to 45 per cent. The proportion of the workforce employed in K4 sectors (those where less than 15 per cent are qualified to graduate level) also fell, while the proportions in K2 and K3 jobs increased (*emda*, 2009, p 263 - Updated as 'The East Midlands in 2010'), which suggests that this lack of demand for high level jobs represents a particular barrier to up-skilling in the East Midlands. However, it must be noted that due to the sample size in the Annual Population Survey, which was used for this calculation, estimates tend to be more volatile at regional level.

Figure 4.4: Comparison of employment by sector level in the East Midlands and the UK



Source: ONS Crown Copyright, 'Annual Population Survey', 2006-2007, data provided by regional statisticians in the East Midlands.

Source: *emda* (2009, p 264, Figure 6.36 - Updated as 'The East Midlands in 2010').

Whether the UK as a whole is in low-skill equilibrium depends upon the extent to which it compares unfavourably with its main competitors with respect to skill and wage levels, and the extent to which it is locked into this position. In practice, it is exceedingly difficult to definitively categorise the UK as a low-skill equilibrium country. From a regional perspective, however, it is apparent that the relative strengths of the UK economy are disproportionately located in the south east corner of England. Consequently, other areas of the UK are relatively disadvantaged in an economic sense. While the East Midlands' economy is performing as well as many other regional economies, there is the risk that it, like many other regions, it is falling further behind the major agglomerations of high value, high skill, and high wage activity. Accordingly, there is the risk that it will become increasingly dependent upon relatively low skill, low wage work that may be vulnerable to external economic developments. Moreover, low wage work has an endogenous impact on the regional economy because it constrains domestic demand for a range of goods and services produced regionally.

4.5 Policy considerations

There are many components of economic performance. For example, the economic and business structure, the labour force's skills and qualifications, the extent of business networking, collective bargaining and work-place traditions can all affect performance. The extent to which policies at national and local level can intervene in different areas varies.

As has been mentioned, countries such as the UK have achieved relatively high levels of employment and low levels of unemployment by adopting a more market oriented approach to the management of their labour markets. However, there is an enduring concern that the amount of workforce development in these economies might be sub-optimal with potentially severe consequences for those who fail to acquire the skills necessary to sustain their position in the labour market (Finegold and Soskice, 1988; Hogarth and Wilson, 2003; Hogarth et al, 2009). Conversely, some economies in Europe, despite a strong record on educational attainment and workforce skills development, have experienced a relatively high level of unemployment over the 1990s and 2000s.

Inevitably, a great deal of policy making that affects a particular local area is developed at the national and international level. For example, one approach used to explain the strong performance of the Danish and Dutch economies over recent years is the concept of 'flexicurity'. Flexicurity aims to manage transition in economies by providing people with the skills which allow them to sustain their position in the labour market whilst at the same time maintaining macroeconomic stability and preventing unemployment from rising (see Madsen, 2007; Bredgaard et al, 2006; Wilthagen and Tros, 2004).

Flexicurity may be characterised as a system where employers can hire and fire employees easily because of relatively low levels of employment protection regulation, but where people lose their jobs, relatively high benefit replacement levels, together with active labour market policy (especially re-training), allows structural adjustment to take place without high levels of unemployment arising. This is very much a national level policy.

Another approach that is of potentially more relevance at local level is that of the 'high-road' model of economic development; with the 'high-road' based on competitive advantage being gained through innovation, enhanced quality of products and services, and up-skilling, with training and continuous workforce development as integral elements.

4.5.1 *High-road and low-road models of economic development*

It is possible to divide countries into groups based on whether they take what has been termed a 'high road' approach to economic development, or a 'low road approach'. A high road economy is one where competitive advantage is gained through innovation, skills, and quality of products and services. It has been associated with developments in the information-based, knowledge economy. This involves a high level of investment in skills development, and wage levels tend to be high to compensate for these higher skills. However, while those who are in employment receive higher wages, the high-road model has traditionally also been associated with high levels of unemployment, and high-cost social policies to compensate for this, for example in the case of northern European countries.

The low-road approach focuses on the achievement of low levels of unemployment through low wages in an economy focussed on mass production. It has traditionally also been associated with low-cost social policies, because those in work would need less assistance, although the recognition in countries like the UK that there is a minimum income necessary to meet basic needs, and that wages alone may not allow those in low-paid jobs to achieve this income, has increased costs in this area. The low-road approach has been typified by the USA, although the UK is also often identified as having taken a low-road approach, albeit to a lesser extent than the USA (Milberg and Houston, 2005).

It has been suggested that a high-road approach is unsustainable in the current economic climate. Increased international mobility of capital allows businesses to outsource and relocate in the search for low-cost, flexible labour. This can be exacerbated by the higher taxes employers are often expected to pay to support high-cost social policies, such as higher benefits and more training for the unemployed. This can drive up costs and prices, which may not only deter foreign investment, but also encourage local employers to move their operations abroad, further increasing levels of unemployment. This can also reduce incentives for employees to undertake training and skills development, because this will seem less worthwhile if there are no jobs that make use of these skills available at the end of the training.

Although jobs may be better paid, it is questionable whether they are necessarily more secure, due to the flexibility demanded by developments in the global economy. It is possible that there may still be cycling between employment and unemployment under such an economic regime, and that demands placed on national governments for intervention to limit this or to support those who become unemployed may be an increasing burden.

Milberg and Houston (2005) counter these criticisms, finding that the high-road model does not necessarily come with higher production costs. Although wages are usually higher, they find that the high-road approach fosters a more co-operative environment and higher rates of innovation, and that economies that follow a high-road approach are not necessarily uncompetitive internationally, and that some countries that follow a high-road approach have better trade performance than countries that follow a more mixed high-road/low-road approach (pp 138-140). It is also questionable whether taking a high-road approach always results in high levels of unemployment. The economies of northern Europe which have followed the high-road approach have not necessarily suffered particularly high levels of unemployment, while unemployment in some countries that have followed an approach more closely associated with the low-road have experienced increasing unemployment combined with skills shortages in certain areas.

Criticism of the low-road approach has focussed on the relationship between a low-road approach and in-work poverty. Taking a low-road approach requires the employment of a large proportion of the working-age population in low-wage jobs, where there are few opportunities for progress and skills development rarely occurs because it is unnecessary for the employer and unrewarding for the employee. The idea that the USA, a traditional low-road economy, should move towards developing a high-road economy has become increasingly common, with groups like New Mexico Voices for Children (2005) being highly critical of the dependency on low-wage, unskilled employment and the inequalities this causes. Berger (2005) suggests that it is not the high-road approach that is becoming unsustainable due to developments in the global economy, but instead the low-road approach is becoming increasingly unsustainable:

“Strategies based on exploiting low wage labour end up in competitive jungles, where victories are vanishingly thin and each day brings a new competitor [...] As low end firms that compete on price move from one overcrowded segment of the market to the next, there is virtually no chance of gaining any durable advantage. The activities that succeed over time are, in contrast, those that build on continuous learning and innovation” (Berger, 2005).

There is a tendency in the literature to regard the high-road approach as socially desirable, while the low-road approach is seen as economically necessary. This is clearly an issue within the East Midlands. As was seen in Chapter 3, low wages are very evident in certain parts of the region, for example Lincolnshire. Furthermore, the East Midlands has relatively low returns on high levels skills development, and high levels of employment in manufacturing and labour-intensive jobs in the service sector, which are traditionally associated with the low-road approach (see Bosch and Lehndorff, 2005). This raises the question of whether, if the high-road approach is more desirable, attempts to move to a high-road approach are possible in the East Midlands.

4.5.2 Policies to tackle in-work poverty in the UK

Other studies have made a number of suggestions as to how directly to tackle in-work poverty, and links can be made to elements of the high-road model of economic development. For example, Cooke and Lawton (2008) call for reform of the tax credit system including: introduction of a Personal Tax Credit Allowance (to boost the financial incentive to move into work for second adults in couple families); increasing the value of Working Tax Credit for couple families by a third; moving to a system of fixed but flexible entitlement, where awards can rise but not fall between standard assessments; and writing off existing overpayments to low-income families. The same authors argue that there is a need to boost the effectiveness of the minimum wage through maintaining its value at least in line with average earnings growth, tougher enforcement and extending the adult rate to 21-year-olds.

There is also potential for policy development in what Cooke and Lawton (2008) call a need for the reduction of the incidence of low pay through a new ‘agenda for fairness at work’. They argue that a cross-government agenda to reduce low pay is needed, and that the Office for National Statistics should be asked to report annually on progress, which it now does¹². Using a measure related to full-time pay would focus attention on the importance of reducing levels of low pay among part-time workers, not least in making further progress towards closing the gender pay gap. Cooke and Lawton (2008) argue that an agenda to reduce the level of low pay would complement the Government’s long-term targets to achieve an 80 per cent employment rate, significantly boost the UK’s skills base and help reduce child poverty but means addressing the drivers underpinning low pay, such as measures to:

- enhance the skills and capabilities of individuals to command higher wages;
- improve the pay and prospects for progression for those working at the bottom of the wage ladder; and
- develop a range of legislative, voluntary and institutional routes to a labour market that competes on high-value skills and productivity, rather than on low wages (Cooke and Lawton, 2008).

Cooke and Lawton (2008) argue this requires:

¹² See <http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=5837>

- strategic cooperation between government and social partners in low wage sectors, focused on boosting productivity and performance;
- building 'fair wage' commitments into public sector employment contracts and the £125 billion spent each year by the Government on public procurement;
- the development of a 'gold standard' accreditation for employers paying decent wages, linked to wider employment standards;
- ensuring that Local Employment Partnerships deliver sustainable, adequately paid jobs, with training prospects; and
- engaging civil society actions, like campaigns for a 'living wage' and people's desire to shop and do business with employers paying adequate wages.

Goulden (2010, p 11), in seeking to address cycles of poverty, unemployment and low pay makes recommendations along similar lines, including: improving the rights and conditions for agency workers; increasing pay through 'living wage' campaigns or the national minimum wage; addressing issues through public procurement decisions and in careers advice; and making childcare more available and affordable for parents on low incomes.

Cooke and Lawton (2008, p 41) suggest that the sub-national level is an appropriate level for certain interventions due to the significant spatial differences and demand for skills across the UK as a whole, and consequently local areas face different labour market challenges and require different solutions.

Chapter 5 examines specific policy considerations for the East Midlands, arising from the above discussion.

5. Conclusions and policy considerations for the East Midlands

This chapter examines policy considerations for the East Midlands, arising from findings in the preceding chapters.

This chapter includes:

- a recap of key findings; and
- discussion of key policy considerations for the East Midlands and *emda*.

Key points in this chapter are:

- There are six key policy considerations for the East Midlands:
 - ◆ skills;
 - ◆ innovation;
 - ◆ priority sectors;
 - ◆ pathways for advancement within low pay sectors;
 - ◆ working with individual employers and/or through sectoral/spatial employer networks; and
 - ◆ raising awareness of the issue and consequences of in-work poverty - particularly for certain sub-groups to facilitate economic and social inclusion.
- It is crucial to tackle issues around the low skill base and influence the delivery system in order to promote economically valuable skills and ultimately improve productivity and reduce in-work poverty.
- Greater impact may be obtained by prioritising interventions in certain sectors.
- Low-paid employment in the East Midlands is concentrated in the retail, hospitality, and social care sectors (which are projected to grow in terms of employment) - a key point is seeking to promote career pathways and up-skilling within these sectors.
- Working with individual employers and networks thereof is an important way to encourage positive change.
- With the Government's focus on localism, economic development and well-being, local authorities, business bodies and third sector organisations will have a crucial role in moving forward on what are complex, challenging but critical issues.

5.1 Key findings

The incidence of low-paid employment in the East Midlands is higher than that observed across the UK as a whole - approximately a quarter of individuals working within the East Midlands were employed in low-paid occupations in 2009; in 2008 just over 30 per cent worked in low-paid sectors; in 2008/09 approximately 14-18 per cent had hourly earnings less than 60 per cent of median hourly earnings.

The level of in-work poverty in the East Midlands has increased since 2004/05 from 11 per cent to 14 per cent - as defined by the 60 per cent median income threshold and after housing costs – low housing costs in the East Midlands mean that this is slightly lower than the UK average; on a before housing costs basis just over

10 per cent of East Midlands individuals living in working families lived below the poverty threshold compared to the UK average of just over 9 per cent.

There are significant implications for the equalities agenda - the incidence of employment within low-paid jobs in the East Midlands is disproportionately concentrated among women, the young, non-white people and among those not born in the UK. This picture is similar to the UK as a whole. In-work poverty is increasingly prevalent in families within the East Midlands that are headed by women, young people, a non-white person or a lone parent.

Low-paid employment in the East Midlands is concentrated in the retail, hospitality, and social care sectors - the sectoral and occupational structures of the region are not projected to change significantly over the medium-term.

There are sub-regional variations - Lincolnshire exhibits the highest incidence of low-paid work, both on a workplace-basis and residence-basis. There are also concentrations of low-paid work in the region's main cities.

In work-poverty can be seen as linked to a regional low pay-low skill equilibrium which can: push down wages; drive down regional consumption levels with regional domestic demand falling because employers engaged in low-skill, low value work will have a limited demand for high value intermediate products which might be sourced locally; and employees will have relatively low disposable income to spend on locally produced products and services.

Some aspects of the 'high-road' model of economic development offer useful considerations - these are based on competitive advantage being gained through innovation, enhanced quality of products and services, and up-skilling, with training and continuous workforce development as integral elements.

5.2 Key policy considerations

There are six key policy considerations which will now be discussed in turn:

- skills;
- innovation;
- priority sectors;
- pathways for advancement within low pay sectors;
- working with individual employers and/or through sectoral/spatial employer networks; and
- raising awareness of the issue and consequences of in-work poverty - particularly for certain sub-groups to facilitate economic and social inclusion.

5.2.1 Skills

The promotion of economically valuable skills will ultimately improve productivity and reduce in-work poverty. There have been some key developments in this area. Between 2003 and 2005, as there was a rapid increase in the proportion of establishments providing training for their employees. This growth slowed somewhat in 2007, but there was still growth of over 6 per cent between 2003 and 2007, and in 2007 68 per cent of employers were providing some form of training (compared to a national average of 67 per cent). 63.8 per cent of employees in the East Midlands

had undertaken some form of work-place training, compared to a national average of 65 per cent (*emda*, 2009 - Updated as 'The East Midlands in 2010').

However, research (*emda*, 2009 - Updated as 'The East Midlands in 2010') highlights that it is not a lack of skills that is problematic for the UK economy as a whole, but that there are issues concerning employer demand for skills and utilisation of skills. It is also important to ensure that development of skills not only meets current employer demand, but also anticipates future demand.

5.2.2 Innovation

While Business Enterprise Research and Development in the East Midlands has been consistently higher than in the UK as a whole, this has been concentrated in relatively few multinational corporations, and small firms have spent very little on R&D (*emda*, 2009 - Updated as 'The East Midlands in 2010'). Additionally, the proportion of business turnover in the East Midlands attributable to new or improved products has been relatively low, despite a relatively high level of innovation activity in the region as a whole.

On a positive note, the East Midlands has the highest rate of co-operation agreements designed to share the cost, risk and knowledge associated with technological innovation, which provides something to build on in this respect (*emda*, 2009, pp 171-174 – Updated as 'The East Midlands in 2010').

5.2.3 Priority sectors

Greater impact may be obtained by prioritising interventions in certain sectors important to specific local areas. Possible interventions might be grouped around the principles of:

1. ensuring skills and training providers are matching their provision to the needs of priority sectors;
2. encouraging business support organisations to consider these sectors in the delivery of their services.

5.2.4 Pathways for advancement within low pay sectors

The flip side, as seen in this report, is that low-paid employment in the East Midlands is concentrated in the retail, hospitality, and social care sectors. These sectors, though perhaps not a primary focus for innovation, include jobs that are of social value (e.g. in social care) and the importance of these should not be forgotten. These are sectors which are projected to grow in terms of employment.

The key here is seeking to promote career pathways and up-skilling within these sectors. The promotion of 'high performance working' is relevant to any size of organisation and any sector. It can therefore be promoted irrespective of sector because economic and social benefits will accrue. It is important to recognise that if sectors where low-paid jobs are more concentrated continue their over-reliance on low-wages this may have a negative impact on economic development.

5.2.5 Working with individual employers and/or through sectoral/spatial employer networks

Working with individual employers and networks thereof is an important way to encourage positive change. Employers self-evidently play a critical role in

determining terms and conditions and how work is organised, including the balance of temporary and permanent workers, skill requirements and progression structures.

At the level of the individual organisation, there are three areas that can be changed to enable firms to increase demand for higher skills and pay higher wages:

- increasing quality of products and services;
- increasing productivity (Cooke and Lawton, 2009); and
- human resources interventions to increase security in low pay jobs (Metcalf and Dhudwar 2010).

A key point is the importance of ‘bundling up’ policies and practices e.g. if skills and productivity are increased there could be a positive impact on in-work poverty. This conclusion is supported by previous research for *emda* into skills and productivity (Gambin et al, 2009) which noted that there needs to be integration of all policies that have a bearing upon productivity: management capability, innovation in products and processes, entrepreneurship, *etc.* – tackling low pay could be added to that list. Gambin et al (2009) specifically pointed to the importance of policies and practices being bundled together so that if, say, new technologies are being implemented that there is the requisite amount of organisational change and employee training to ensure that the gains from its introduction are fully captured. Successful change requires human resource and production practices to be intertwined if productivity gains are to be obtained. This could then also impact on in-work poverty.

This course of action may be difficult for individual employers - especially SMEs. Therefore, there may be advantage for both employers and for sub-regions/the region as a whole for these issues to be tackled through employer networks. These could be organised on either a spatial or a sectoral basis, as appropriate.

5.2.6 Raising awareness of the issue and consequences of in-work poverty for the equalities agenda

As has been seen in this report in-work poverty has significant implications for the equalities agenda because certain groups are disproportionately vulnerable in this regard; for example, the incidence of employment within low-paid jobs is concentrated among women, the young, non-white people and among those not born in the UK. Understanding the relative composition of the low-paid is important in terms of the prioritisation and implementation of policies to assist those in low-paid work.

The importance of in-work poverty, and its relationship to socio-economic inequalities, for public bodies is demonstrated through a number of developments. Of particular importance is The Equality Act 2010. The Act creates a new public sector duty related to reducing socio-economic inequalities. Also of relevance are Local Economic Assessments requiring integration of economic, social and environmental issues (including poverty).

5.3 Endword

In-work poverty has evidently been a reality in the East Midlands for some time with consequences not only for individuals but the regional economy. Moreover the problem has increased in recent years and potentially could become more acute.

In-work poverty can be addressed by appropriate skills, industrial and employment policies at firm, sectoral and spatial level. Whatever the level of intervention is, certain groups are disproportionately vulnerable to being in-work poor. This emphasises the implications for the equalities agenda.

Annex 1: Definitions of poverty

Poverty is usually defined based on income, in part because data on income is usually more easily obtainable than other types of data, but also because studies have found that when an individual or a household rises out of poverty, this is more likely to be due to changes in income rather than changes in household composition (with the exception of lone parents) (Kenway, 2004, p 14). When income is used to define poverty, it can be an *absolute*, i.e. having less than an objectively defined minimum standard, or *relative*, i.e. having less than others in society, measure.

A1.1 Relative poverty

In the UK (as in most other EU countries), a relative definition is most commonly used: an individual is defined as being on a low income if their income is below two thirds of the median income.

Building on this definition, it is possible to establish a measure of what makes a household poor. To do this, adjustments are made to take into account the size and composition of the household. In European Union statistics provided by Eurostat since 2001, these adjustments involve the use of a modified OECD equivalence scale, which gives a weight of 1.0 to the first adult, 0.5 to any other household member aged 14 or over and 0.3 to each child, but other studies use different equivalence scales. MacInnes, Kenway and Parekh (2009, p 16) provide figures for 2007/8 which show that the 60 per cent equivalised income was:

- £115 for a single adult with no dependent children;
- £195 for a lone parent with two children under 14;
- £199 for a couple with no dependent children;
- £279 for a couple with two children under 14 (all figures are weekly and net of Council Tax and after the deduction of housing costs).

The use of monthly net income after housing costs is the most common approach taken, but a small number of authors use a slightly different measure, for example, MacInnes and Kenway (2009) define low income as 60 per cent of the median male full-time hourly earnings, and Tomlinson and Walker (2010) use equivalised gross monthly income before housing costs. These variations are usually the result of differences in the data collection methods used in producing different data sets.

This has produced a definition of household poverty that states – a household is defined as being poor if they have an income below a particular threshold (usually 60 per cent) of the national median income adjusted for household size.

Eurofound (2007, pp 3-4) state that their preference is to use a relative approach to the definition of poverty because minimal acceptable standards usually differ between societies depending on levels of prosperity, so that someone regarded as poor in a rich developed country might be regarded as being poor in a developing country, and a relative approach enables them to more easily compare different countries. Lohmann (2009, p 490) makes a similar argument, finding that using a relative approach to income poverty permits a greater focus on other aspects of a country's policy regime that impact on in-work poverty, in particular the benefits systems and attitudes towards unionisation and collective bargaining. As mentioned above, it is this relative definition that has most commonly been applied in investigations of in-work poverty.

An alternative approach is to define a certain proportion of the population as having a low income and hence being at risk of poverty. An individual has a low income if their income is in the bottom 10 per cent, 20 per cent or 30 per cent of the population as a whole.

A similar measure can be applied to households, defining a household whose adjusted income is in the bottom 10, 20 or 30 per cent of all household incomes as being a household that is in poverty.

A1.2 Absolute poverty

In contrast to the UK, in the USA, there is an official absolute poverty line, which was originally defined based on estimating the cost of a minimal food budget but which is now updated to take into account annual price changes. This is preferred to the relative approach because it is seen as a less arbitrary measure as it considers what people need to live on, a problem also identified by Grover and Stewart, (2002 p 71) and Grover (2005, p 11) who suggest that the 60 per cent of the median measure is used without policy-makers knowing whether this level secures a minimum standard of living, falls well short or exceeds it considerably. Kenway (2008, p 22) is also critical of measures that use only income to define poverty:

“[T]he poverty line – indeed any particular level of income – is an arbitrary line drawn in the sand. It is not a real boundary. Life just to one side of it is not qualitatively different from life just to the other. In these circumstances, lifting a family to some particular level of income may risk marooning them in a place they would still rather not be”
(Kenway, 2008, p 22)

A1.3 Deprivation

Partly as a result of these concerns about measuring poverty solely based on income, there have been attempts to construct measures of poverty based on the impact it has on people's life circumstances and *deprivation*. Thus, an individual or household may be defined as being in poverty if they lack access to what most people regard as necessities. Examples in the literature include work by Willitts, 2006.

This is a more subjective way of defining and measuring poverty. Some measures of deprivation, in addition to covering access to material resources, such as money, food and housing, also include access to education, healthcare and various activities that allow the development of meaningful relations with other people. In doing this, they highlight the relationship between poverty and social exclusion.

Tomlinson and Walker (2010) also employ a subjective measure of poverty, focusing on financial strain. This measure asks respondents whether they feel that they have experienced periods where they feel themselves to have been only 'just about getting by' or worse. They also investigate the use of material deprivation as a measurement of poverty, considering the consumer durables people have access to.

Law et al (2010, pp 13-14) note that there are problems in using subjective measures of poverty, in particular those that rely on people defining for themselves whether they are in poverty. Being in poverty has many negative connotations which people sought to avoid, and when people were asked to define poverty, they often set the threshold at a very low level, which implicitly excluded themselves from being in poverty, as in the case of one respondent in Law et al's survey who thought that

poverty was when “[you have] *nothing in your cupboards or not being able to pay your bills*” (p 14)

A1.4 *Minimum Income Standard*

Bradshaw et al (2008) have attempted to combine the previous approaches to establish a Minimum Income Standard (MIS). They determine this standard through the establishment of a social consensus about the goods and services that everyone should be able to afford. This approach allows them to take into account subjective measures of what people need to live on, while also providing a figure for the income that people need to achieve to avoid poverty, which measures of deprivation alone often fail to do. This means an individual or household is in poverty if they do not earn what is established as the minimum income necessary to achieve a minimum acceptable standard of living. This includes income to purchase goods and services and to have access to opportunities and choices that social consensus says that everyone should be able to afford.

A1.5 *Persistent risk of poverty*

Instead of simply looking at poverty at a particular point in time, as the other measures do, Bardone and Guio (2005) and Eurostat (2007) use a ‘persistent risk of poverty’ measure. So, a household is in poverty if their disposable income over the current year and two of the preceding three years is below the threshold for being in poverty in any one year.

They have used the 60 per cent of median household income measure, but the idea of looking at income over an extended period is applicable to other measures of poverty. This longer-term approach highlights the instability faced by the working poor who are particularly at risk of cycling between employed and unemployment.

A1.6 *A capabilities approach*

One final, and very different, idea to note is that of a ‘capabilities approach’ (also see Bonvin, and Orton, 2009; Green and Orton, 2009). Originally developed in the work of Amartya Sen (e.g. Sen 1982; 1992; 1993; 1999; 2009) and Martha Nussbaum (e.g. Nussbaum 2000; 2003), the notion of capabilities has over the last twenty years become a hugely influential theory for international social justice, for example underpinning the work of the United Nations Development Programme (Deneulin et al, 2006), and there is increasing interest in the capabilities approach by sociologists and those concerned with social policy in Western countries (Zimmerman, 2006). Sen developed the notion of capabilities in the context of his interest in poverty in developing countries, and as an alternative to the utilitarian basis of modern welfare economics and liberal political thought (Burchardt, 2004). In the briefest terms, Sen seeks to replace utility with capabilities as the object of value (Burchardt, 2004). Thus, the capabilities approach characterises human well-being in terms of what people are or do; for example, being healthy, reading or writing, or taking part in the life of the community - Sen describes this as ‘*functionings*’ (Deneulin et al, 2006, pp 1-2). However, Sen considers freedom to be one of the most basic aspects of human life. Therefore, according to Sen, well-being should be assessed not so much by what people are or what people do, as by what they are free to be or do; for example, being able to be healthy, being able to read and write, and being able to participate in the life of the community. This is demonstrated in Sen’s two oft quoted examples. First, two people may be hungry, but for one this is due to there being a famine, the other is making a choice for reasons of religious devotion. Second,

giving a person a bicycle will only aid their mobility if they are also shown how to cycle. Sen calls such abilities '*capabilities*', and a capability is therefore:

“a person’s ability to do valuable acts or reach valuable states of being [...] The capability of a person reflects the alternative combinations of functionings the person can achieve, and from which he or she can choose one collection”
(Sen, 1993, pp 30-31)

In developing the idea of 'capability for work' Bonvin and Farvaque (2006, p 126), paraphrasing Sen, argue, that what is critical is “the real freedom to choose the work one has reason to value”. This might in fact mean that people choose not to engage in paid employment. A capabilities approach can also lead to questioning of a skills agenda. For example, the provision of skills training may well improve a person's functioning as an economic actor, but it will not of itself enhance his/her capacity to choose how he/she lives or to achieve happiness: “Skills and knowledge that may be exploited in the labour market are not the same things as capabilities” (Dean et al, 2005, p 9). Zimmerman (2006), draws on Gasper (2002) to argue that a capabilities approach in fact offers the means for a reformulation of human capital theory into a grammar of human development defined as 'a process of enlarging people's choices'. The difference is that while human capital is exclusively focused on what a person is able to do – 'skills-capabilities' – human development also takes into account the opportunities a person has to develop his/her skills – 'opportunities-capabilities'.

A capabilities approach undoubtedly opens up many interesting issues, but certainly in relation to the UK its practical application is highly questionable (e.g. see Burchardt, 2004). Notions of the aim of public policy being to enhance 'opportunities-capabilities' provides a very different starting point to current policy approaches, but the issue of applicability means its current policy relevance is questionable.

Annex 2: Defining low-paid occupations and sectors

In the analysis of low-paid work, Chapter 3 utilises definitions of low paying occupations and low paying sectors derived by the Low Pay Commission (LPC). These occupations and sectors have been identified by the LPC as having a large number or a large proportion of low paying jobs and are utilised to inform their annual recommendations regarding the size of the National Minimum Wage (see National Minimum Wage, LPC, 2009). Both an industry-based and occupational-based definition of low paying sectors of the economy are provided by the LPC. Details of those industries and occupations that are classified by the LPC as low-paid are shown in Table A2.1.

The LPC do revise the derivation of these classifications to reflect changes in the composition of low pay. For the purpose of the present analysis, we assume that the current derivations of low pay can be applied to historical data in order to provide a consistent definition of low-paid employment. It is noted that an industry can be considered as a group of occupations brought together to facilitate the production or provision of particular goods and services. Within traditional 'low paying' industries, there will be some well paid jobs. Similarly, within 'high paying' sectors, some individuals will be employed in low-paid occupations. As a result, the LPC-defined low paying occupations and low paying sectors will not provide complete coverage of all those who are employed in low-paid work. Along both dimensions, the LPC estimates that these definitions cover approximately 70 per cent of those in low-paid jobs.

Table A2.1: *LPC derived definitions of low-paid sectors and occupations*

Low paying sector/occupation	Industry-based definition (SIC2003)	Occupation-based definition (SOC2000)
Retail	50, 52, 71.405	711, 721, 925
Hospitality	55	5434, 9222, 9223, 9224, 9225
Social Care	85.3, 85.113	6115
Cleaning	74.7, 93.01	6231, 9132, 923
Security	74.6	9241, 9245, 9249
Hairdressing	93.02, 93.04	622
Textiles and Clothing	17, 18	5414, 5419, 8113, 8136, 8137
Agriculture	01-05	911
Childcare	n.a.	6121, 6122, 6123, 9243, 9244
Food processing	15.1-15.8	5431, 5432, 5433, 8111
Leisure, travel and sport	92.13, 92.3, 92.6, 92.7	6211, 6213, 9226, 9229
Office work	n.a.	4141, 4216, 9219

Source: Low Pay Commission, 2009.

Annex 3: Supplementary analyses of publicly-available ASHE data

A3.1 Introduction

The tables in this Annex provide a useful overview of earnings in the East Midlands in a broader context. Workplace-based ASHE data are used below to compare earnings in the East Midlands with other Government Office Regions and countries of the UK and are disaggregated by sex of employee and hours worked (full-time compared with part-time).

The analyses do not contradict the findings of the previous section, but offer a different approach to investigation of pay differential between and within the East Midlands, which it is hoped will add to the evidence-base concerning low pay in the region. So whereas above the focus of the investigation was on those in low paying sectors and occupations, the purpose of this section is to use ASHE data to compare the relative positions of East Midlands employees at various pay points with their UK-wide and regional counterparts. This section is presented as discrete, because of the different methodological focus

A3.2 Median hourly pay 1998 to 2009

The analysis in this section presents comparisons of East Midlands median¹³ pay levels with other regions' / countries' pay levels and with the UK average. Figures are presented from 1998 to 2009. It is possible to derive a time trend for these data, but due to methodological changes within ASHE, only the last four surveys are strictly comparable. In the main the analysis of ASHE data here concentrates on using the most recent data (2009).

There is a question of whether comparison with the UK average is meaningful, in that the UK average will include data for London, which in terms of pay levels, and numbers of workers is vastly different from any other region, and thereby exerts a large influence on the figures. This is why the figures presented show the East Midlands in comparison with the other regions / countries, as well as with the UK average.

Table1 shows East Midlands median hourly pay as a percentage of other regions' and the UK's median hourly pay. Thus a figure over 100 per cent indicates that hourly median pay for that year was higher in the East Midlands. The latest figures for 2009 indicate that the median hourly pay rate in the East Midlands is lower than all regions / countries except Northern Ireland, Wales, Yorkshire and the Humber and the North East. From looking at data across the years, it can be seen that this pattern is well-established; only the four named regions have at any point, over the time period shown, had a lower median hourly pay rate than the East Midlands. The largest discrepancies in hourly median rates, as expected, are when the East Midlands is compared with London and with the South East.

¹³ Median pay is the mid point in the pay distribution. That is 50% of employees will be at or above this level and 50% will be at or below. The median is considered a better indicator of general pay levels in a labour market, than the mean, as it is not affected to the same extent by extremes of pay at the higher end.

Table A3.1: Median hourly pay compared with other regions / countries and the UK average 1998 to 2009

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
UK	91.3	90.7	90.0	90.6	91.2	92.0	91.3	92.3	92.5	91.1	91.7	91.7
North East	100.9	100.4	99.0	100.7	102.3	103.7	102.9	102.9	103.6	100.5	102.1	101.1
North West	95.5	95.5	95.1	96.3	96.1	97.2	96.4	97.5	97.7	95.0	97.4	98.0
Yorkshire & Humber	100.9	98.7	98.1	99.3	100.1	99.9	98.9	100.5	101.1	98.7	100.2	100.3
West Midlands	95.5	95.2	94.8	94.6	96.8	97.5	97.1	98.0	98.5	97.5	98.7	98.6
East	91.7	90.8	90.3	90.9	92.9	93.0	93.0	94.7	95.0	93.7	95.2	95.6
London	67.8	67.7	66.0	66.3	66.3	66.2	65.8	65.8	67.0	65.3	66.1	65.9
South East	86.5	86.0	84.4	84.6	84.0	85.0	84.6	87.8	87.7	86.0	86.6	87.4
South West	97.5	98.6	97.5	97.7	98.7	97.9	98.0	99.7	98.6	97.3	97.9	97.8
Wales	99.6	99.4	98.5	100.1	101.9	102.9	98.7	100.8	101.2	100.5	102.1	101.5
Scotland	96.0	94.8	95.2	94.7	94.6	96.9	97.0	96.6	96.3	93.6	93.7	93.1
Northern Ireland	100.1	101.8	99.6	102.0	102.7	103.4	101.4	100.1	101.0	102.3	102.0	100.7
East Midlands	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Annual Survey of Hours and Earnings, 1998-2009, Office for National Statistics.

A3.3 Median hourly pay 2009 by sex and by full-time / part-time work

The time series above showed median hourly pay in the East Midlands compared with other regions / countries. Here the latest median hourly paid data are considered disaggregated to show results for:

- male employees;
- female employees;
- part-time employees; and
- full-time employees.

These results are summarised in Chart 2. As above the chart shows the pay levels for the East Midlands as a percentage of the comparable pay level in other regions / countries, so that a figure less than 100 indicates that the other region / country has a higher pay level than the East Midlands on that particular measure. Chart 2 reveals the following:

- female workers in the East Midlands have the lowest median hourly pay rate of all the UK regions;
- for all full-time workers and for male workers, the median hourly rate in the East Midlands is higher than in Northern Ireland, Wales, Yorkshire and the Humber and the North East; and
- for part-time workers the median hourly rate in the East Midlands is lower than all other regions with the exception of Wales.

A3.4 Lowest decile hourly pay 2009 by sex and by full-time / part-time work

The median pay level is not necessarily a good indicator of poverty levels, as it only shows the mid-point in the earnings distribution, though it is a much better short-hand measure of a particular earnings profile than the mean (which can be skewed a few instances of high earnings). ASHE allows investigation by decile groups, and in this section and the next, results are presented for the lowest decile and lowest quintile of employees by pay. The results are disaggregated as before, and are presented in Chart 3. This shows:

- as expected, at this end of the earnings distribution, the figures for other regions / countries, expressed as a percentage of East Midlands figures are much closer than for the median values. However, the lowest decile figure for London is still appreciably higher than in the East Midlands and in all other regions;
- for all employees, the lowest decile hourly rate in the East Midlands is higher than the rate in Northern Ireland, Wales, the North East, the North West and the same as in Yorkshire and the Humber;
- for female employees the lowest decile figure is lower in the East Midlands than for all other regions with the exception of the North East;
- for male employees the lowest decile figure in the East Midlands is mid placed; the figure is lower in six regions and higher in five; and

- the lowest decile figure for part-time workers for the East Midlands is the same as for six other regions / countries, and is also the same as the figure for the UK as a whole.

The finding that the hourly pay for the lowest decile of part-time workers for the East Midlands is the same as six other regions / countries is worthy of some comment. Closer inspection reveals that this is because the lowest decile figures for these regions / countries are at the hourly rate for the adult minimum wage. Since its introduction, the National Minimum Wage (NMW) has affected the pay at the lower end of the scale and it is manifest in the way in which spikes are produced in the earnings distribution.¹⁴ The lowest ten per cent of part-time workers in many regions are paid at or below the NMW.¹⁵ (Note that some workers will legitimately be paid lower than the adult rate – identifying such employees does not necessarily imply non-compliance on the behalf of the employer).

A3.5 Lowest quintile hourly pay 2009 by sex and by full-time/part-time work

Results of investigation of the lowest quintile are presented in Chart 4. For the lowest quintile figure for part-time workers, the East Midlands is the same as for four other regions / countries, and higher than the figures in the North East and North West. Looking at the actual figures, these hourly rates are not part of the minimum wage spike as before; i.e. the pay level for the lowest quintile is not at the same level as for the lowest decile, which could have been the case if large numbers were all on the same hourly rate.

A3.6 Weekly pay

Arguably hourly pay rates are only one element of what should be considered when looking at earnings data, as hourly pay rates give little no indication of the numbers of hours worked¹⁶ and hence take-home pay. Weekly figures potentially give more information about the sort of income level which might be available to the individual, though it must be noted that earnings can vary week by week, they are unlikely to vary systematically to affect these analyses.

As above, the median, lowest decile and lowest quintile earning points are considered, and are disaggregated by sex and full-time / part-time.

A3.7 Median Pay

For all employees, median weekly pay in the East Midlands is higher than in all regions except London, the South East, the East and Scotland. Median hourly pay was also lower than these regions / countries, but additionally was lower than the West Midlands and the South West. This difference between the relative position of the East Midlands in relation to the other regions / countries may be due to a

¹⁴ For examples of this such spikes see the Reports on the National Minimum Wage published by the Low Pay Commission. There are larger spikes at the adult rate and smaller spikes at the development rate (those aged 18-21) and the rate for youngest workers (aged 16-17).

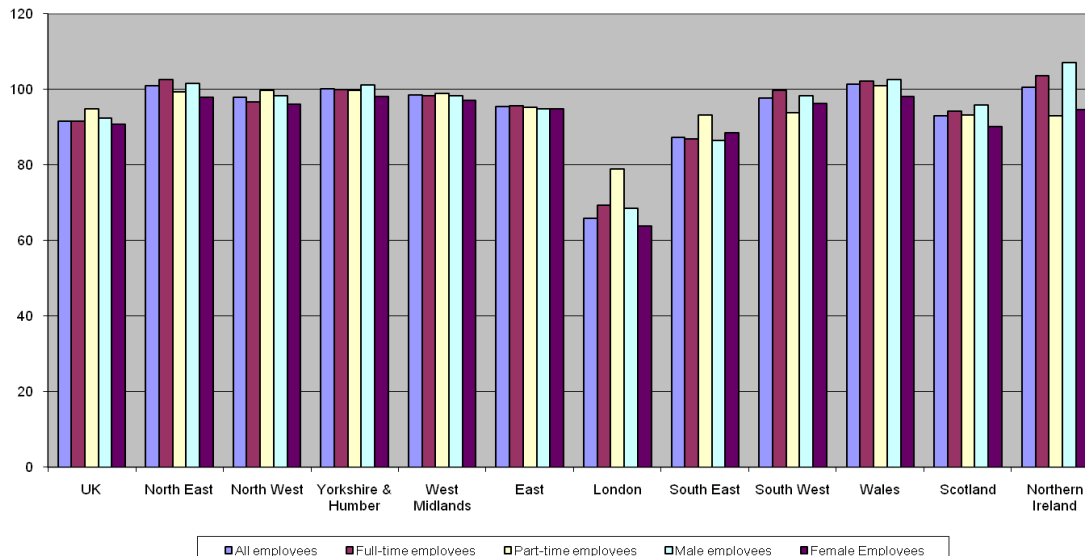
¹⁵ Note that some workers will legitimately be paid lower than the adult rate – identifying such employees does not necessarily imply non-compliance on the behalf of the employer.

¹⁶ Though disaggregating by full or part-time does indicate those who work more than or less than 16 hours per week.

difference in hours worked, or the difference could be attributable to the estimation methods.

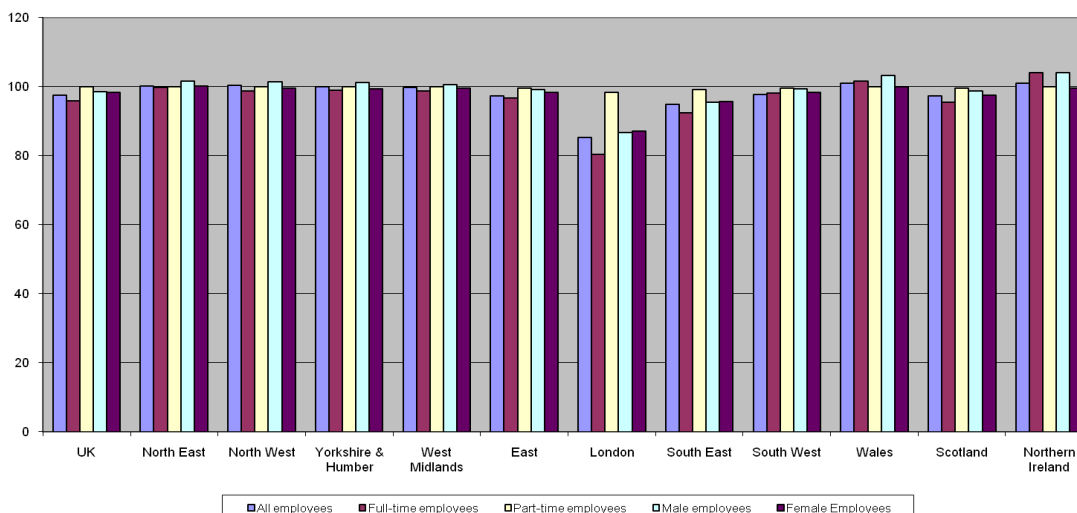
The median figure weekly pay figure for part-time employees is lower in the East Midlands than for any other region. For hourly pay, the figure for the East Midlands was only higher than the estimate for Wales.

Chart A3.1: *East Midlands Median Hourly Pay (2009) as a percentage of pay for other GORS / Countries*



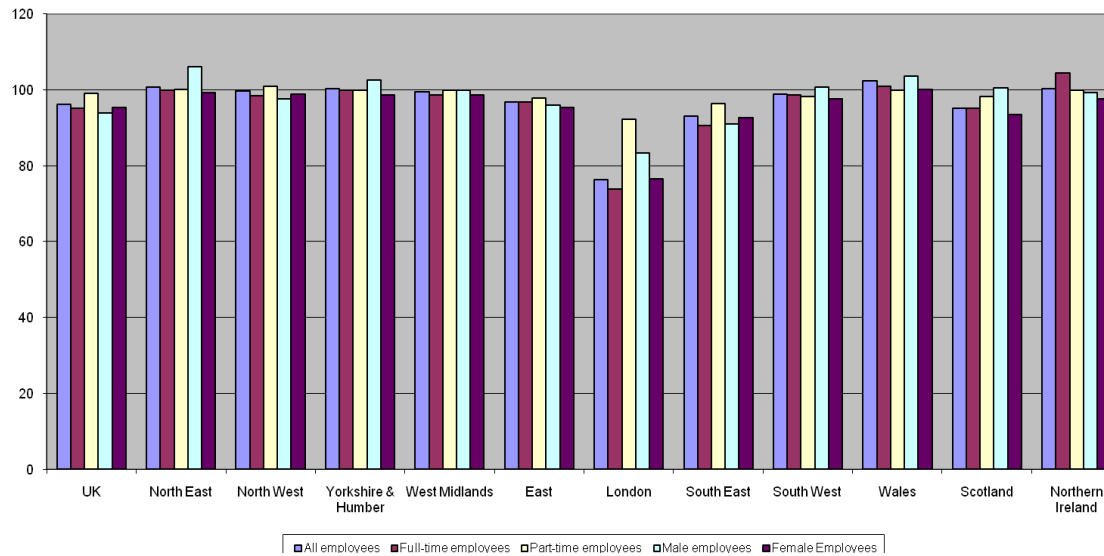
Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

Chart A3.2: *East Midlands Lowest Decile hourly pay (2009) as a percentage of pay for other GORS / Countries*



Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

Chart A3.3: *East Midlands Lowest Quintile hourly pay (2009) as a percentage of pay for other DORs / Countries*



Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

The median weekly pay level for female workers in the East Midlands is lower than for any other region. The figure for the East Midlands is typically between 90 per cent and 99 per cent of the value for the other regions. The exception to this is the value for London; the East Midlands figure is 61 per cent of the London female weekly median.

A3.8 Lowest decile and lowest quintile

The figure for the lowest decile in the East Midlands for weekly pay is higher than all regions except London, Scotland and Northern Ireland. The pattern is similar for the lowest quintile where in addition to the three regions above, the figure for the South East is also higher than for the East Midlands.

The lowest decile figure for the East Midlands is higher than the South West, the North West and Yorkshire and the Humber, and for the lowest quintile the East Midlands figure is higher than the West Midlands, the South East and the South West.

The figures for the lowest decile and lowest quintile of female employees for the East Midlands are higher than the South West, the West Midlands, the East and Yorkshire and the Humber.

Hence, ASHE data indicate that on most measures pay levels in the East Midlands are amongst the lowest in the UK. UK-wide part-time workers and female workers are paid less than their full-time and male counterparts. However, women and part-time workers are particularly low-paid in the East Midlands. Unfortunately through ASHE it is not possible to link these low-paid groups to their household structure, or even the point in their life course. In this way, we are unable to identify for which low-paid workers, the low pay is a particular problem. The 'pin-money' argument is a long-established way in which employers and legislators have sought to explain away low wages as acceptable, or even an inevitable feature of capitalist labour markets; (for a review of the main arguments about 'pin-money' see Abbott and Wallace

[1997]). Arguably, it is quite a different matter for an individual to be low-paid if they are in a household where the household income is high, even though this presupposes some degree of equitable division of resources amongst household members. Equally it is quite another matter for a young worker, for example living in the parental home, to be on a low wage.

Because it is not possible to link low-paid workers to household structure, or even the place in the worker's lifecourse, this limits the claims which can be made about in-work poverty. The lowest paid groups in the East Midlands can be identified and the pay levels of can be compared with other regions, but it is not possible to make definitive claims about the levels of in-work poverty in the East Midlands, either at an absolute level, or in relation to other regions, from ASHE data.

A3.9 Persistence of low pay

Looking at ASHE data for the East Midlands compared with other regions shows that the pay points considered for the different categories of employee are fairly stable over the last four surveys. (If the proportions stay stable, then the absolute difference between the East Midlands and higher paid regions will increase). It is not possible from aggregate data to identify whether the lowest paid groups are the same people year on year. The ability to perform such an analysis is important, as it would illuminate issues such as churn in the lower paid end of the labour market, and would give some insight into the possibilities, or otherwise, for moving into higher paid work, either within the same employment, or in a different job. It would also be a way of examining poverty across the life course.

A3.10 Income inequality

It is possible to use the variables, which have been considered above to provide an estimate of income spread or income inequality in the East Midlands as compared with other regions and the UK. One of the most widely used measures of income inequality in an economic area is the Gini coefficient. In order to calculate this measure individual level data are required. Hence, a simpler method is used here. Comparisons are shown between the highest and lowest deciles (Table A3.1) and between the highest and lowest quintiles (Table A3.2).

Where data were available, results were calculated for:

- all employees;
- male employees;
- female employees;
- full-time employees;
- part-time employees;
- male full-time employees (not shown here);
- male part-time employees (not shown here);
- female full-time employees (not shown here); and
- female part-time employees (not shown here).

It can be seen from the tables above that the largest ratios of highest decile to lowest decile and highest quintile to lowest quintile are the London estimates. The figures for the East Midlands are broadly in line with those of other regions, suggesting that the income distribution for the regions is broadly similar.

Table A3.2: Highest decile hourly earnings group as a multiple of lowest decile hourly earnings group earnings, by region 2009

	All	Male	Female	Full-time	Part-time
UK	4.0	4.2	3.5	3.7	3.4
North East	3.5	3.6	3.3	3.3	3.0
North West	3.7	3.9	3.4	3.5	3.2
Yorkshire and the Humber	3.5	3.6	3.3	3.4	3.0
East Midlands	3.7	3.8	3.3	3.5	2.9
West Midlands	3.7	3.9	3.3	3.5	3.2
East	3.8	4.0	3.4	3.6	3.5
London	5.0	5.5	4.1	4.5	4.6
South East	4.1	4.4	3.5	3.9	3.5
South West	3.7	3.9	3.3	3.4	3.5
Wales	3.5	3.6	3.3	3.4	3.0
Scotland	3.6	3.9	3.3	3.4	3.2
Northern Ireland	3.6	3.7	3.5	3.5	3.3

Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

Table A3.3 Highest quintile pay group earnings as a multiple of lowest quintile pay group, by region, 2009

	All	Male	Female	Full-time	Part-time
UK	2.6	2.6	2.5	2.4	2.2
North East	2.4	2.3	2.2	2.2	2.0
North West	2.5	2.5	2.4	2.4	2.0
Yorkshire and Humber	2.4	2.4	2.3	2.3	2.0
East Midlands	2.5	2.5	2.3	2.3	1.9
West Midlands	2.5	2.5	2.3	2.3	2.0
East	2.5	2.6	2.3	2.4	2.2
London	2.8	3.0	2.6	2.5	3.0
South East	2.7	2.7	2.4	2.5	2.3
South West	2.5	2.4	2.3	2.3	2.3
Wales	2.4	2.4	2.4	2.3	2.0
Scotland	2.5	2.4	2.4	2.3	2.2
Northern Ireland	2.5	2.5	2.5	2.4	2.3

Source: Annual Survey of Hours and Earnings, 2009, Office for National Statistics.

Annex 4: EU country codes (for Figure 4.1)

EU27 European Union (27 countries)

BE Belgium

BG Bulgaria

CZ Czech Republic

DK Denmark

DE Germany (including ex-GDR from 1991)

EE Estonia

IE Ireland

GR Greece

ES Spain

FR France

IT Italy

CY Cyprus

LV Latvia

LT Lithuania

LU Luxembourg (Grand-Duché)

HU Hungary

MT Malta

NL Netherlands

AT Austria

PL Poland

PT Portugal

RO Romania

SI Slovenia

SK Slovakia

FI Finland

SE Sweden

UK United Kingdom

HR Croatia

MK Former Yugoslav Republic of Macedonia, the

TR Turkey

IS Iceland

NO Norway

CH Switzerland

References

- Abbott P. and Wallace C. (1997) *An introduction to sociology: feminist perspectives*, London: Routledge
- Adler, M. (2004) 'Combining welfare-to-work measures with tax credits: A new hybrid approach to social security in the United Kingdom' in *International Social Security Review*, Vol. 57, No. 2. pp 87-106
- Atkinson, A.B. and Hills, J. (1998) *Exclusion, Employment and Opportunity*, CASE Paper 4. London: LSE
- Azmat, G.Y. (2006) *The Incidence of an Earned Income Tax Credit: Evaluating the Impact on Wages in the UK*. CEP Discussion Paper No 724, Centre for Economic Performance, LSE.
- Bardone, L. and Guio, A-C. (2005) In-work poverty: New commonly agreed indicators at the EU level. Statistics in *Focus, Population and Social Conditions*, 5/2005. European Communities.
- Bennett, F. and Millar, J. (2004) 'Making Work Pay?' in *Benefits*, No 42, Vol 13, Issue 1. pp 28-33
- Berger, S. (2005) *How We Compete: What Companies Around the World Are Doing to Make It in Today's Global Economy*. Boston, MIT Industrial Performance Centre and Doubleday Books
- Bevan Foundation and New Policy Institute (2006) *Dreaming of £250 a week: A scoping study of in-work poverty in Wales*. Blaenau Gwent: The Bevan Foundation
- Blundel, R., Brewer, M. and A. Shepherd (2005) *The Impact of Tax and Benefit Changes Between April 2000 and April 2003 on Lone Parents' Labour Supply*, Institute for Fiscal Studies Briefing Note No.52
- Bonvin, J.-M. and Farvaque, N. (2006) 'Promoting Capability for Work: The Role of Local Actors', in Deneulin, S. Nebel, M. and N. Sagovsky (eds.) *The Capability Approach: Transforming unjust structures*. Dordrecht: Springer. pp 121-42
- Bonvin, J.-M. and Orton, M. (2009) 'Activation policies and organisational innovation: the added value of the capability approach' in *International Journal of Sociology and Social Policy*, Vol 29, No 11. pp 565-574
- Bosch, G. and Lehndorff, S. (2005) 'Introduction: Service economies – high road or low road?' in Bosch, G. and Lehndorff, S. (eds.) *Working in the Service Sector: A tale from different worlds*. Abingdon: Routledge. pp 1-32
- Bosworth, D.L., Davies, R., Hogarth, T. and R.A. Wilson (2001) *The Employers Skill Survey: Statistical Report*. Nottingham: Nottingham Department for Education and Employment / National Skills Task Force
- Bradshaw, J., Middleton, S., Davis, A., Oldfield, N., Smith, N., Cusworth, L. and J. Williams. (2008). *A minimum income standard for Britain*. York: Joseph Rowntree Foundation
- Bredgaard, T., Larsen, F. and P.J. Madsen (2006) 'Opportunities and challenges for flexicurity - The Danish example' in *Transfer: European Review of Labour and Research* 2006; Vol 12, pp 61
- Brewer, M. (2001) 'Comparing in-work benefits and the reward to work for families with children' in *Fiscal Studies* Vol 22, No 1. pp 41-77
- Brewer, M. and Shephard, A. (2004) *Has Labour made work pay?* York: Joseph Rowntree Foundation and London: Institute of Fiscal Studies

- Brewer, M., Duncan, A., Shephard, A. and M.J. Suarez (2003) 'Did working families' tax credit work? Analysing the impact of in-work support on labour supply and programme participation' *Inland Revenue Working Paper 2*
- Brown, S. and Pudney, S. (2005) 'Hours constraints and in-work poverty' in *Bulletin of Economic Research* Vol 57 No 3. pp 305-315
- Burchardt, T. (2004) 'Capabilities and Disability: The Capabilities Framework and the Social Model of Disability' in *Disability & Society* Vol 19, No 7. pp 735-751
- Card, D., Kramarz, F. and Lemieux, T. (1999) 'Changes in the relative structure of wages and employment: a comparison of the United States, Canada and France' in *Canadian Journal of Economics*, Vol 32. pp 843-877
- Carpenter, H. (2006) *Repeat Jobseeker's Allowance Spells*. London: Corporate Document Services
- Cooke, G. and Lawton, K. (2008) *Working Out of Poverty: A study of the low-paid and the 'working poor'*. London: IPPR
- Danziger, S. and Gottschalk, P. (1986) 'Work, poverty and the working poor: A multifaceted approach' in *Monthly Labor*, September 1986, pp 17-21
- Davis, C. and Patterson, T. (2009) 'Calendar 3: 2009' in *Benefits: The Journal of Poverty and Social Justice*. Policy Press. pp 1-19
- Dearden, L., McIntosh S., Myck, M. and A. Vignoles (2000) *The Return to Academic, Vocational and Basic Skills in Britain*. Skills Task Force Research Paper 20. London: Department for Education and Employment
- Dean, H., Bonvin, J.-M., Vielle, P. and N. Farvaque (2005) 'Developing Capabilities and Rights in Welfare-to-Work Policies', in *European Societies* Vol 7, No 1. pp 3-26
- Deeming, C. (2005) 'Minimum Income Standards: How Might Budget Standards be set for the UK?' in *Journal of Social Policy*, Vol 34, No 4, pp 619-636
- Department for Business, Innovation and Skills (2009) *Partnerships for Growth: A National Framework for Regional and Local Economic Development* London: Department for Business, Innovation and Skills
- Department for Communities and Local Government (2009) *Transforming places; changing lives: taking forward the regeneration framework* London: Department for Communities and Local Government
- Department for Work and Pensions (2002) *Measuring child poverty: A consultation document*. London: DWP
- Department for Work and Pensions (2007) *In work, better off: next steps to full employment*. Norwich, HMSO
- Deneulin S., Nebel M. and Sagovsky N. (2006) 'Introduction: The Capability Approach', in S. Deneulin, M. Nebel and N. Sagovsky (eds.) *The Capability Approach: Transforming unjust structures*, Dordrecht: Springer. pp. 1-16
- emda* (2006) *A Flourishing region - Regional Economic Strategy for the East Midlands 2006-2020*. *emda*
- emda* (2009) *The East Midlands in 2009 (Updated as 'The East Midlands in 2010')* Nottingham: *emda*
- emda* (2010) *Innovation Strategy for the East Midlands 2010-2013*. Nottingham: *emda*
- European Foundation for the Improvement of Living and Working Conditions, (Eurofound) 2007. *Income poverty in the European Union*. Dublin: Eurofound

- Evans, M., Harkness, S. and R.A. Ortiz (2004) Lone parents cycling between work and benefits. Department for Work and Pensions Research Report No 217. Leeds: Stationery Office
- Family Budget Unit (2004) Low cost but acceptable budget for families with children, April 2004. York: FBU
- Fernald, J. G. and Ramnath, S. (2004) The acceleration in U.S. total factor productivity after 1995: The role of information technology, *Economic Perspectives*. Chicago: Federal Reserve Bank of Chicago
- Finegold, D. and Soskice, D (1998) 'The Failure of Training in Britain: Analysis and Prescription' in *Oxford Review of Economic Policy*, Vol 4, No 3. pp 21-53
- Freeman, R.B. and Schettkat, R. (2000) The Role of Wage and Skill Differences in US-German Employment. National Bureau of Economic Research Working Paper 7474. Massachusetts: NBER
- Freud, D. (2007) Reducing dependency, increasing opportunity: options for the future of welfare to work. An independent report to the Department for Work and Pensions. Leeds: Stationery Office.
- Gambin, L. with Green, A. E. and Hogarth, T. (2009) Exploring the Links Between Skills and Productivity. Coventry: Warwick Institute for Employment Research
- Gardiner, K. and Millar, J. (2006) 'How Low-Paid Employees Avoid Poverty: An Analysis by Family Type and Household Structure' in *Journal of Social Policy* Vol 35, No 3. pp 351–369
- Gasper, D. (2002) 'Is Sen's Capability Approach an Adequate Basis for Considering Human Development?' in *Review of Political Economy* Vol 14, No 4. pp 435–61.
- Goulden, C. (2010) Cycles of Poverty, Unemployment and Low Pay. York: Joseph Rowntree Foundation
- Government Equalities Office (2010) The Equality Bill: Duty to reduce socio-economic inequalities - a guide London: Government Equalities Office
- Graham, J., Tennant, R., Huxley M. and W. O'Connor (2005) The role of work in low income families with children – a longitudinal qualitative study. Department for Work and Pensions Research Report No. 245. Leeds: Stationery Office
- Green, A.E., Gambin, L. and Owen, D. (2007) City Strategy – Labour Market Churn, Report to One Nottingham. Coventry: IER, University of Warwick
- Green, A.E. and Orton, M. (2009) 'The integration of activation policy at sub-national level: a case study of the City Strategy initiative in an English sub-region' in *International Journal of Sociology and Social Policy* No 29 Vol 11. pp 565-574
- Gregory, M. (2000) 'Employment and labour markets: some issues for the new millennium' in *International Journal of Manpower*, Vol 21, No 3/4. pp 160-176
- Grover, C. (2005) 'Living wages and the 'making work pay' strategy' in *Critical Social Policy*, No 25, pp 5-27
- Grover, C. (2007) 'The Freud Report on the future of welfare to work: Some critical reflections' in *Critical Social Policy* No 27. pp 534-545
- Gutiérrez Palacios, R., Guillén Rodríguez, A.M., and R. Peña-Casas (2009) Earnings inequality and in-work-poverty. REC-WP 07/2009 Working Papers on the Reconciliation of Work and Welfare in Europe, RECOWE
- Harker, L. (2006) Delivering on Child Poverty: What would it take? A Report for the Department for Work and Pensions. Norwich: HMSO

- Heidenreich, M. (2004) 'Regional capabilities and the European Employment Strategy' in Salis, R. and Villeneuve, R. *Europe and the Politics of Capabilities*. Cambridge: Cambridge University Press. pp 54-72
- Hills, J., Brewer, M., Jenkins, S., Lister, R., Lupton, R., Machin, S., Mills, C., Modood, T., Reese, T. and S. Riddell (2010) *An anatomy of economic inequality in the UK: Report of the National Equality Panel*. London: Government Equalities Office
- Hirsch, D., Davis, A. and N. Smith (2009) *A minimum income standard for Britain in 2009*. York: Joseph Rowntree Foundation
- Hobcraft, J. (1998) *Intergenerational and life-course transmission of social exclusion: influences of childhood poverty, family disruption, and contact with the police*, CASE paper 15. London: LSE
- Hogarth, T., Bosworth, D., Gambin, L. and R.A. Wilson (2009) *Review of Employer Collective Measures: Empirical Review, Evidence Report 7*, UK Commission for Employment and Skills, Wath-upon-Deane
- Howarth, C. and Kenway, P. (2004) *Why worry anymore about the low paid?* London: New Policy Institute
- IFF/IER (2008) *Employer Train to Gain Evaluation: Sweep 1-3 Research Report*, Coventry: Learning and Skills Council
- Johnson, P. and Reed, H. (1996) 'Intergeneration Mobility among the Rich and the Poor: results from the NCDS' in *Oxford Review of Economic Policy*, Vol 12, No 1. pp 127-142
- Jones, P. and Dickerson, A. (2007) *Poor Returns: Winners and Losers in the Job Market*. Manchester: Equal Opportunities Commission
- Kemp, P., Bradshaw, J., Dornan, P., Finch, N. and E. Mayhew (2004) *Routes out of poverty: a research review*. York: Joseph Rowntree Foundation
- Kenway, P. (2008) *Addressing in-work poverty*. York: Joseph Rowntree Foundation
- Krueger, A.B. and Pischke, J-S. (1997) *Observations and Conjectures on the US Employment Miracle*. National Bureau of Economic Research Working, Paper No. 6146.
- Krugman, P. (1994) *Past and Prospective Causes of High Unemployment*, in *Reducing Unemployment: Current Issues and Policy Options*, Jackson Hole Conference, WY
- Lawton, K. (2009a) 'Tackling in-work poverty' in *Poverty*, No. 134, pp 5-8
- Lawton, K. (2009b) *Nice work if you can get it: Achieving a sustainable solution to low pay and in-work poverty*. London: Institute for Public Policy Research
- Lindsay, C. and McQuaid, R.W. (2004) 'Avoiding the 'McJobs': Unemployed Job Seekers and Attitudes to Service Work' in *Work Employment Society* Vol 18, No 2. pp 297-319
- Lohmann, H. (2009) 'Welfare States, Labour Market Institutions and the Working Poor: A Comparative Analysis of 20 European Countries' in *European Sociological Review* Vol 25, No 4. pp 489-504.
- Lucifora, C., McKnight, A. and Salverda, W. (2005) 'Low-wage employment in Europe: a review of the evidence' in *Socio-Economic Review* Vol 3, pp 259-292
- Low Pay Commission (2009) *National Minimum Wage. Low Pay Commission Report 2009*. London: Low Pay Commission

- MacInnes, T. and Kenway, P. (2009) *London's Poverty Profile*. London: City Parochial Fund and New Policy Institute
- MacInnes, T., Kenway, P. and Parekh, A. (2009) *Monitoring poverty and social exclusion 2009*. York: Joseph Rowntree Foundation and London: New Policy Institute
- Madsen, P.K. (2005) 'The Danish road to flexicurity: Where are we. And how did we get there?' in Bredgaard, T. and Larsen, F. (eds.) *Employment policy from different angles*, Copenhagen: DJØF Publishing. pp 269-290
- Madsen, P. J. (2007) 'Flexicurity - Towards a Set of Common Principles?' in *International Journal of Comparative Labour Law and Industrial Relations*, Vol 23, No 4. pp 525-542
- Manacorda, M. and Petrongolo, B. (1999) 'Skill mismatch and unemployment in OECD countries' in *Economica*, Vol 66. pp. 181 – 207
- Mason, G. (2000) 'Production supervisors in Britain, Germany and the United States: back from the dead again?' in *Work, Employment and Society*, Vol. 14. pp 625-645
- Mason, G. and Wagner, K. (2002) 'Skills, Performance and New Technologies in the British and German Automotive Components Industries' Discussion Paper, National Institute of Economic and Social Research. London
- Mason, G., van Ark, B. and Wagner, K. (1994) 'Productivity, Product Quality and Workforce Skills: Food Processing in Four European Countries' in *National Institute Economic Review*, Vol 147, No 1. pp 62-83
- McIntosh, S. and Steedman, H. (2002) 'Increasing the Supply of Skills' in *European Journal of Education*, Vol. 37, No. 3. pp. 281 - 299
- McQuaid, R. Fuertes, V. and A. Richard (2010) *How can parents escape from recurrent poverty?* York: Joseph Rowntree Foundation
- Meadows, P. (2008) *Local initiatives to help workless people find and keep work*. York: Joseph Rowntree Foundation
- Metcalf, H. and Dhudwar, A. (2010) *Employers' role in the low-pay/no-pay cycle*. York: Joseph Rowntree Foundation
- Middleton, S. (2000), *Agreeing poverty lines: the development of consensual budget standards methodology*. CRSP2223. Loughborough: Centre for Research in Social Policy, Loughborough University
- Milberg, W. and Houston, E. (2005) 'The High Road and the Low Road to International Competitiveness: Extending the Neo-Schumpeterian Trade Model Beyond Technology' in *International Review of Applied Economics*, Vol 19, No 2. pp 137-162
- Millar, J. (2008) 'Making work pay, making tax credits work: An assessment with specific reference to lone-parent employment' in *International Social Security Review*, Vol 61, No 2. pp 21-38
- Millar, J. and Gardiner, K. (2004) *Low pay, household resources and poverty*. York: Joseph Rowntree Foundation
- Morris, J. N. and Deeming, C. (2004), 'Minimum incomes for healthy living (MIHL): next thrust in UK social policy?' in *Policy and Politics*, Vol 32, No 4. pp 441–54
- Morris, J. N., Donkin, A. J. M., Wonderling, D., Wilkinson, P. and E. Dowler (2000), 'A minimum income for healthy living' in *Journal of Epidemiology and Community Health*, Vol 54. pp 885–9

- New Mexico Voices for Children (2005) *The Path to a High Road Economy: Investing in People, Creating Opportunity*. New Mexico: NM Voices.
- Nickell, S. and Bell, B. (1996) 'Changes in the distribution of wages and unemployment in OECD countries' in *American Economic Review*, Vol 86. pp. 302-308
- Nussbaum, M. (2000) *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press.
- Nussbaum, M. (2003) 'Capabilities as Fundamental Entitlements: Sen and Social Justice', in *Feminist Economics*, Vol 9, No 2-3. pp 33-59
- Ormerod, C. and Ritchie, F. (2007) 'Issues in the measurement of low pay' in *Economic and Labour Market Review*, Vol 1, No 6. pp 37-45
- Patterson, T. (2007) 'Calendar 2' in *Benefits* Vol 15, No 2. pp 1-24
- Peña-Casas, R. and Latta, M. (2004) *Working poor in the European Union*. European Foundation for the Improvement of Living and Working Conditions
- Phimister, E. and Theodossiou, I. (2009) 'Gender differences in low pay labour mobility and the national minimum wage' in *Oxford Economic Papers*, Vol 61. pp i122-i146
- Ray, K., Hoggart, L., Vegeris, S. and R. Taylor (2010) *Better off working? Work, poverty and benefit cycling*. York: Joseph Rowntree
- Ridge, T. (2002) *Childhood Poverty and Social Exclusion: From a Child's Perspective*. Bristol: Policy Press
- Sen, A. (1982) *Choice, Welfare and Measurement*. Oxford: Basil Blackwell.
- Sen, A. (1992) *Inequality re-examined*. Cambridge, Mass: Harvard University Press.
- Sen, A. (1993) 'Capability and Well-Being', in Nussbaum, M.C. and Sen, A. (eds.) *The Quality of Life*. Oxford: Oxford University Press. pp 30-66
- Sen, A. (1999) *Development as Freedom*. New York: Knopf
- Sen, A. (2009) *The Idea of Justice*. London: Allen Lane
- Smith, N. and Middleton, S. (2007) *A review of poverty dynamics research in the UK*. York: Joseph Rowntree Foundation
- Sparkes J. (1999) *Schools, Education and Social Exclusion*, CASE paper 29. London: LSE
- Stewart, M. (1999) 'Low Pay in Britain', in Gregg, P. and Wadsworth, J. (eds.) *The State of Working Britain*. Manchester: Manchester University Press
- Stewart, M. (2006) *The Inter-related Dynamics of Unemployment and Low-wage Employment*, *Warwick Economic Research Papers No. 741*. Coventry: University of Warwick
- Tomlinson, M. and Walker, R. (2010) *Recurrent poverty: The impact of family and labour market changes*. York: Joseph Rowntree
- Tripney, J., Newman, N., Bangpan, M., Hempel-Jorgensen, A., Mackintosh, M., Tucker, H. and J. Sinclair (2009) *In-work poverty: a systematic review*. Department for Work and Pensions Research Report No 549. Norwich, Department for Work and Pensions
- Wilkinson, F. (2001) *The Theory and Practice of Wage Subsidisation: Some Historical Reflections*. Working Paper No. 201. ESRC Centre for Business Research, University of Cambridge

- Willitts, M. (2006) *Measuring child poverty using material deprivation: possible approaches*. York: Joseph Rowntree
- Wilson, R., Homendiou, K. and A. Dickerson, (2008) *Working Futures: Main Research Report*, SSDA, Wath-upon-Dearne
- Wilson, R.A. and Hogarth, T. (2003) *Tackling the Low Skill Equilibrium*, London: DTI Research Report
- Wilson, R. A. and Hogarth, T. (2002) *Skills Matter: A synthesis of the Extent Causes and Implications of Skill Deficiencies Study*, Nottingham: Department for Education and Employment / National Skills Task Force
- Wilthagen, T. and Tros, F. (2004) 'The concept of 'flexicurity': a new approach to regulating employment and labour markets' in *Transfer: European Review of Labour and Research* Vol 2. pp 166 -186
- Working Futures (2007) *Working Futures 2004-2014*. Warwick Institute for Employment Research and Cambridge Econometrics for UKCES
- Worth, S. (2005) 'Beating the 'churning' trap in the youth labour market' in *Work, Employment and Society*, Vol 19, No 2. pp 403-414
- Zimmermann, B. (2006) 'Pragmatism and the Capability Approach: Challenges in Social Theory and Empirical Research', *European Journal of Social Theory* Vol 9, No 4. pp 467-484