

The Hourglass and the Escalator

Labour market change and mobility

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Contents

Acknowledgements	2
Executive summary	4
1. Introduction	7
2. The changing shape of the labour market	10
3. Earnings and inequality	21
4. Mobility in the labour market	24
5. Conclusions and policy recommendations	30
Appendix I. Standard Occupational Classification 2000	34
Appendix II. Median wage by occupation, 2010	36
Appendix III. Minor occupational change 2001-2007	37
Appendix IV. Deciles transition matrix	41

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List of Boxes, Figures and Tables

Box 1: Examples of career ladder initiatives for low-wage workers	27
Figure 1: Changes in the structure of occupational employment: 2001-2007	11
Figure 2: Changes in the structure of occupational employment for men (ranked by average wage) 2001-2007	11
Figure 3: Changes in the structure of occupational employment for men by sector: 2001-2007	12
Figure 4: Changes in the structure of occupational employment for men (ranked by average wage) 2007-2010	15
Figure 5: Changes in the structure of occupational employment for women by sector (ranked by average wage) 2001-2007	15
Figure 6: Changes in the structure of occupational employment for women (ranked by average wage) 2001-2007	17
Figure 7: Changes in the structure of occupational employment for women 2007-2010	18
Figure 8: Employment rate of the working-age population by highest qualifications: 2001-2010	20
Figure 9: Nominal wage change based on hourly wages, men, 2000-2010	23
Figure 10: Nominal wage change based on hourly wages, women, 2000-2010	23
Figure 11: Earnings mobility in the 2000s based on hourly earnings	25
Figure 12: Immobile low-earners by 2008/2009 occupation	25
Table 1: Twenty fastest declining male occupations, 2001-2007	37
Table 2: Twenty fastest growing male occupations, 2001-2007	38
Table 3: Twenty fastest declining female occupations, 2001-2007	39
Table 4: Twenty fastest growing female occupations, 2001-2007	40

The past decade has been a period of considerable change in the labour market, in particular in the latter years when the economy has experienced recession and emerging recovery. Over the longer-term, as the economy has been increasingly based on knowledge rather than routine production, new jobs have been created in large numbers in high-skill, high-wage professional and managerial occupations. Yet the last decade has also seen growth in lower wage service occupations, combined with a reduction in middle-wage occupations, leading to concerns of employment polarisation. **In short, there appears to be a gradual hollowing-out of the labour market.**

This hollowing-out has led some commentators to talk of the labour market as being increasingly structured like an hourglass, and bifurcated into good and bad jobs. This report investigates the evidence and implications of these changes in the labour market. It finds evidence for employment polarisation, with technological change reducing the demand for routine workers in administrative and secretarial, and process, plant and machine operative occupations.

The process of labour market change and polarisation has tended to be experienced differently by men and women. For men in the 2000s the growth in employment share was solely among the three highest wage and the three lowest wage occupations. For women there was very strong growth in employment in professional occupations, supported in large part by increasing public sector employment. There was also strong growth in personal service occupations.

However, changes in the labour market have not resulted in the sharp increases in wage inequality which were seen in the 1980s and 1990s. For men wage inequality did increase somewhat in the 2000s, and this was driven by the faster growth in wages at the top. For women wage inequality was stable over the period.

The recent recession was not the white-collar recession that many commentators were predicting. Employment in professional occupations continued to grow through the recession and into the recovery (although managerial employment has contracted in the early recovery). The large-scale job losses in the recession were in routine manual and non-manual occupations, with the recession accelerating the structural changes which were already reducing these occupations in size. In the early recovery, alongside an increase in professional jobs there has also been growth in the numbers of elementary jobs – jobs which tend to be unskilled and low-wage. This is important because although the economy has begun creating jobs, a significant number of these are in the low-wage occupations, meaning that those who lose jobs in relatively better paid and more skilled occupations may have to take work at a lower wage and skill level.

The least skilled have suffered in the recession as people with more skills ‘bump-down’ in the labour market. The pattern of employment growth in the early recovery has important implications for those least able to compete for jobs. The employment rate for those with no qualifications fell markedly during the recession, as competition for entry level posts has become intense, with those leaving relatively more skilled jobs competing for those jobs which are available.

One of the potentially damaging aspects of growing polarisation in the labour market is that it may create additional barriers to earnings mobility. Estimates from the British Household Panel Survey (BHPS) suggest that around a third of those in the bottom ten per cent of earners in 2001/2 were still there in 2008/9, and that more than 60 per cent remained in the bottom three deciles. The BHPS also shows that women and those with no qualifications were significantly more likely to remain stuck at the bottom of the earnings distribution. There is therefore concern that in many cases low-wage work is not acting as an 'escalator' into employment which offers better wages and prospects, but is instead a dead-end.

In order to support in-work progression for low earners, policy makers should:

- **Identify ways to improve and upgrade service sector employment.** Emerging work in Canada and the US has driven an ambitious call to 'upgrade' and improve low-wage service work so that it offers more in terms of better wages, job satisfaction and opportunity for progression. This is something that has clear attractions, and the potential for such an approach should be given serious consideration in the UK context.
- **Work with employers, sector skills councils and training providers to develop career ladders.** In some sectors career ladders which offer clear paths for in-work progression can help to significantly boost earnings mobility and ensure individuals are not trapped in dead-end jobs.
- **Ensure good quality careers advice is available.** In sectors where career ladders are not likely to be effective in engendering earning mobility, workers can be supported to progress through mobility between jobs. Careers advice can help to facilitate this but it needs to be more visible to those already in employment.
- **Promote lifelong learning.** Upgrading qualifications is associated with increasing earnings. A key challenge is to foster a culture of learning among individuals once in the workplace, as well as to encourage employers to support workers learning needs.

Recent changes in the labour market have also created some specific policy needs going forward:

- **Facilitate the sector swap.** A significant component of public sector employment growth in the past decade has been in professional occupations. In the context of large cuts to public expenditure there is therefore a rationale for a public sector skills programme to ensure that skills developed in the public sector are effectively transferred into private sector employment.
- **Re-skill and re-train.** Structural changes in the economy mean that when some people lose their job a return to the same, or a similar, occupation is unlikely. There is currently relatively

little support available for those who require fuller re-training. To facilitate this there may be a case for providing greater flexibility in the benefits system to allow individuals to retrain.

This paper is the second in a series of publications as part of The Work Foundation's new research programme, [The Bottom Ten Million](#), which focuses on the employment prospects of Britain's low earners between now and 2020 and seeks to identify the priority measures that need to be taken if they are to share in the sources of growth and prosperity over the next decade. There are ten million people in Britain who currently have annual incomes of less than £15,000. The Bottom Ten Million programme is sponsored by Working Links, The Tudor Trust, the Barrow Cadbury Trust and the Private Equity Foundation.

1. Introduction

Work exerts an important influence on an individual's health and wellbeing; it is the central determinant of income and an important factor in social mobility.¹ Because of this, the quality and quantity of work has important consequences for the nature of UK society, the shape of the income distribution and the welfare of individuals. The structure of employment has consequences beyond the world of work.

The past few decades have seen evidence that the labour market is gradually polarising into high quality and low quality jobs. As the economy has become increasingly based on knowledge intensive services the use and dissemination of knowledge, rather than routine production, are increasingly valued. In the face of globalisation, and with the pace of technological change rapid, evidence has suggested that certain routine middle-wage jobs would be automated or off-shored. While in part in response to the needs of the well-paid knowledge workers, low-skilled employment – particularly in personal service work – has also grown.

These trends may have been exacerbated by the recent recession. At the start of the downturn many commentators predicted that this would be a white-collar recession. The recession was sparked in the banking and financial sectors, and therefore the impact was predicted to be worst for those working in these industries. This logic had a geographical implication as well as London and the South East are the focus of much financial services employment and this is where the impact would be most felt.²

In reality, while it is clear that some white-collar occupations have been negatively impacted by recession, the overall trend has not been one of highly skilled white-collar job loss. In fact, the number of professional jobs continued to increase right through the recession. Instead the story has been largely one of accelerated structural decline in some middle-wage occupations and the loss of manual jobs. At the regional level London has fared comparably well, while the West Midlands, the North West and Wales have suffered the biggest employment falls.³

Meanwhile, the cuts in public spending will also shape future changes in the labour market. The Office for Budget Responsibility predicts that there will be 330,000 fewer jobs in the public sector by 2014/2015.⁴ These job losses will have a proportionately larger impact on places outside the greater south east. The issues surrounding the potential impacts of public sector cuts and prospects for economic growth in the nation's cities and regions have been the focus of previous Work Foundation research.⁵

This report takes stock of the changing shape of the British labour market over the last decade, through a period of growth and then recession. The report asks how is the shape of the labour market changing and

¹ Waddell, G. and Burton, K. (2006) *Is work good for your health and well-being?* London, TSO

² Lee, N. (2009) *Financial services, the middle classes and the south: What explains the geography of the recession*, The Work Foundation: London

³ UKCES (2010) *UK Employment and Skills Almanac 2010* (<http://www.ukces.org.uk/evidence-reports/uk-employment-and-skills-almanac-2010>)

⁴ These figures are of course the subject of debate and some commentators believe they underestimate the likely employment loss

⁵ See Lee, N. (2010) *No City Left Behind? The geography of the recovery – and the implications for the Coalition*, The Work Foundation, London; Wright, J. (2011) *Cutting the Apron Strings? The clustering of young graduates and the role of the public sector* The Work Foundation, London

how might this affect individuals employment prospects and social mobility? The paper asks four main research questions:

1. How has the labour market changed in the last decade for men and women?
2. What was the impact of the recession on different types of occupations?
3. How mobile are individuals in the labour market and what are the characteristics associated with immobility?
4. What can policymakers do to support in-work progression and to increase earnings mobility?

These questions are addressed through a new analysis of data on the labour market. In the first section of the paper data from the Labour Force Survey (LFS) is used to examine changes in the occupational structure during the 2000s. This allows us to show structural changes in the occupations which people were employed in over the latter part of the long economic boom (2001-2007), the impact of the recession on these trends, and what has happened in the early stages of the recovery. Trends in wages among high and low earners over the decade are then examined drawing on data from the Annual Survey of Hours and Earnings (ASHE). Finally, attention is turned to the issue of earnings mobility. Here longitudinal data from the British Household Panel Survey is used to investigate the level of mobility among low-wage earners, and to describe the characteristics of those who remain stuck in low-paid work. This evidence is used to inform a set of policy recommendations which relate to addressing inequalities within the labour market and to boosting earnings mobility.

Labour market polarisation

There is a growing body of research that suggests that labour markets in a number of developed countries are becoming increasingly polarised into 'lovely' and 'lousy' jobs.⁶ There are several explanations for this trend:

- Technological change (as detailed below);
- Globalisation and off-shoring of semi-skilled production jobs has reduced demand for some groups of workers;⁷
- Growth in high-skill occupations can in itself increase the demand for lower level jobs, particularly in private personal services;⁸
- Other socio-demographic trends, for example those associated with increasing female participation in the labour market and the aging population, have also increased the demand for some personal service occupations.⁹

⁶ Goos, M. and Manning, A. (2003) *Lousy and lovely jobs: the rising polarization of work in Britain* CEP Working Paper

⁷ OECD (2011) *Growing income inequality in OECD countries: What drives it and how can policy tackle it?* OECD, Paris

⁸ CEDEFOP (2011) *Labour market polarization and elementary occupations in Europe: Blip or long-term trend?* CEDEFOP Research Paper No. 9

⁹ Ibid

The role of technological change in increasing or reducing demand for different types of jobs has been an important subject of research in recent years. Rather than the more generalised Skill-Biased Technological Change (SBTC) thesis, which stated that technology would replace low-skilled jobs, it has increasingly been argued that there is a key distinction between routine and non-routine work. Autor, Katz and Kearny argue that the ‘first-order impact’ of computerisation is to displace middle-skill and middle-income routine cognitive and manual tasks, the examples they cite being book-keeping and repetitive production work.¹⁰ This phenomenon has been termed routinisation. Autor and Dorn extend this analysis to document the rise of low-skill service occupations in the US in the 1990s, including (among others) food service workers, cleaners, home health aides, child care workers, hairdressers and beauticians and recreation occupations.¹¹ They argue that occupations such as these, which involve physical and interpersonal activities, have ‘proven cumbersome and expensive to computerise’, while the middle-wage set of routine and production tasks have been more ‘readily computerised because they follow precise, well-understood procedures’.

Low-skill/low-wage service work is therefore often difficult to automate or to outsource precisely because it consists of either a series of non-routine physical tasks, or because it relies on inter-personal (soft) skills. An important corollary of this is that workers in service occupations must live in the same areas as the buyers of their services.¹²

Recent empirical work has shown evidence for growing employment polarisation in the US, the UK and other European economies.¹³ Goos, Manning and Salomons use cross-European data to illustrate the hollowing-out of middle-wage occupations (in manufacturing and clerical posts) alongside growth in the numbers employed in both the highest and the lowest paying occupations.¹⁴ This hollowing-out of the labour market, with declines in the middle but growth at the top and bottom has lead many commentators to talk of the labour market as being increasingly structured like an hourglass.

A more polarised job market can have direct implications for employment and earnings mobility, as individuals can become trapped in poor quality, low-paid work. The evidence and implications for this in Britain are discussed in the rest of this report.

¹⁰ Autor, D., Katz, L. and Kearney, M. (2006) ‘Measuring and interpreting trends in economic inequality’ *AEA Papers and Proceedings* 96:2

¹¹ Autor, D. and Dorn, D. (2009) *Inequality and specialization: The growth of low-skill service jobs in the United States* IZA Discussion Paper No. 4290

¹² Ibid

¹³ Goos, M., Manning, A. and Salomons, A. (2010) *Explaining job polarization in Europe: The roles of technology, globalization and institutions* CEP Discussion Paper No. 1026; Goos, M. and Manning, A. (2003) *Lousy and lovely jobs: the rising polarization of work in Britain* CEP Working Paper; Autor, D., Levy, F. and Murnane, R. (2003) ‘The skill-content of recent technological change: An empirical investigation’ *Quarterly Journal of Economics*, vol 118, pp1279-1333; Autor, D., Katz, L. and Kearney, M. (2006) ‘Measuring and interpreting trends in economic inequality’ *AEA Papers and Proceedings* 96:2; Autor, D. and Dorn, D. (2009) *Inequality and specialization: The growth of low-skill service jobs in the United States* IZA Discussion Paper No. 4290; cf Holmes, C. (2010) *Job Polarisation in the UK: An assessment using longitudinal data* SKOPE Research Paper No.90

¹⁴ See also CEDEFOP (2011) *Labour market polarization and elementary occupations in Europe: Blip or long-term trend?* CEDEFOP Research Paper No. 9

2. The changing shape of the labour market

This section investigates occupational change in Britain in the 2000s using data from the Labour Force Survey (LFS). The analysis covers changes in the occupational structure during a period of economic growth (2001-2007), as well as those occurring during the recession and in the early period of the recovery.¹⁵

While the LFS is a UK wide survey, the analysis excludes Northern Ireland to ensure comparability with the work on longer-term patterns in earnings mobility which draws on the British Household Panel Survey. The analysis of LFS data also excludes full-time students who were also working. The Standard Occupational Classification (SOC2000), which represents the task content of a workers job role, is used to describe employment change. A table summarising the different occupational groups is provided in Appendix I.

Between 2001 and 2007 there was strong growth in higher-wage, higher-skilled occupations, in managerial, professional, and associate professional and technical jobs.¹⁶ Figure 1 on the next page shows the net change in employment by major occupation group during this period, the latter part of a long economic boom experienced since the recession of the early 1990s. Taken together managerial, professional, and associate professional and technical occupations account for more than three-quarters of employment growth over this time, something indicative of the growth of a more knowledge intensive economy. The other significantly growing occupation was personal services, which grew by more than 300,000; there was also more modest growth in sales and customer services occupations. In contrast, there were sizeable declines in administrative and secretarial, and process, plant and machine operative occupations.

Employment change for men

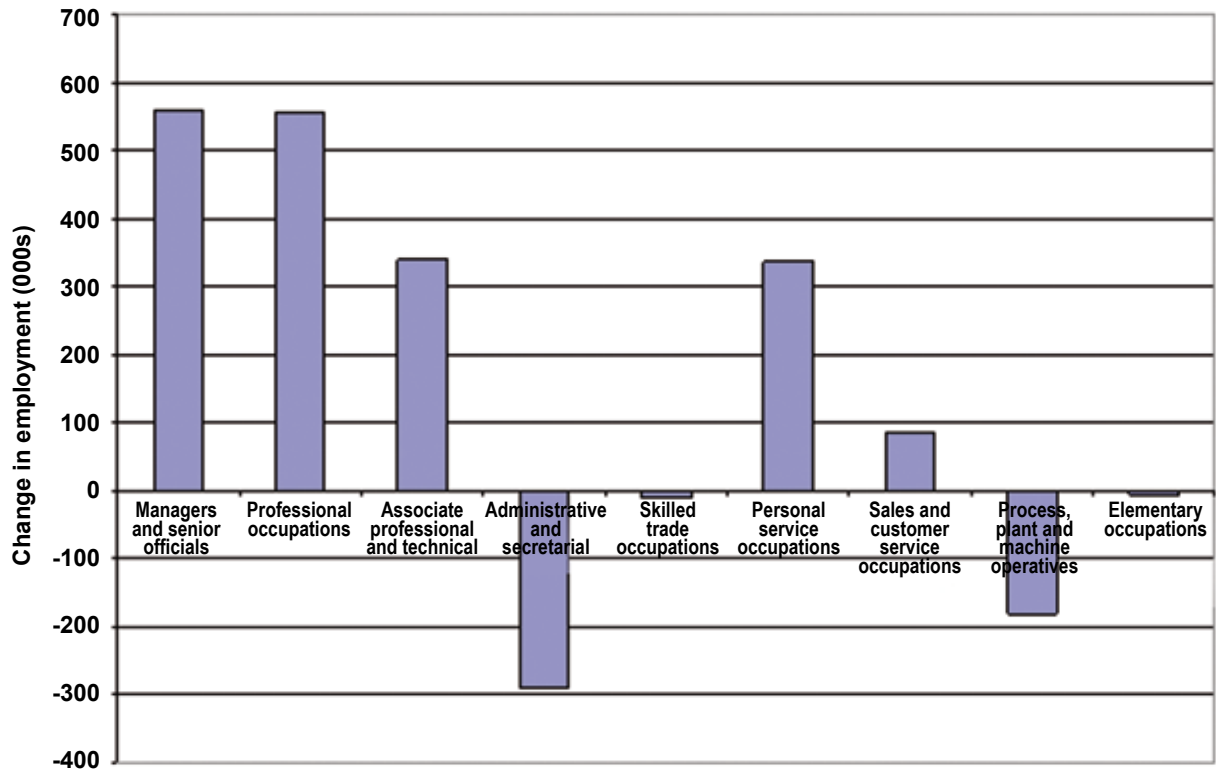
Underlying the overall figures for trends in occupational change shown in Figure 1 are some significant gender differences. Figure 2 on the next page shows the change in employment share by occupation for men between 2001 and 2007. Looking at the employment share change allows us to assess changes in the relative importance of occupations in the labour market. The occupations in this case are ranked by their median wage in 2010, with the column on the far left having the highest wage and the far right the lowest.¹⁷ Again the increased importance of high-wage occupations is apparent, with strong growth in the employment share of professional and managerial occupations. On the other hand the data also show a hollowing-out of middle-wage occupations, with a declining importance of skilled trades, administrative and secretarial, and process, plant and machine operative occupations. In absolute terms this trend was most pronounced among process, plant and machine operative occupations which declined by in excess of 60,000 jobs. At the bottom end of the wage distribution there was growth in personal services, elementary occupations, and sales and customer services jobs; combined these occupations accounted for the growth of some quarter of a million jobs.

¹⁵ The analysis begins in 2001 to ensure direct comparability between occupations. In 2001 the 2000 Standard Occupational Classification (SOC) codes were introduced in the LFS, prior to this the data report the 1990 SOC

¹⁶ The median wage by occupational group is provided in Appendix II

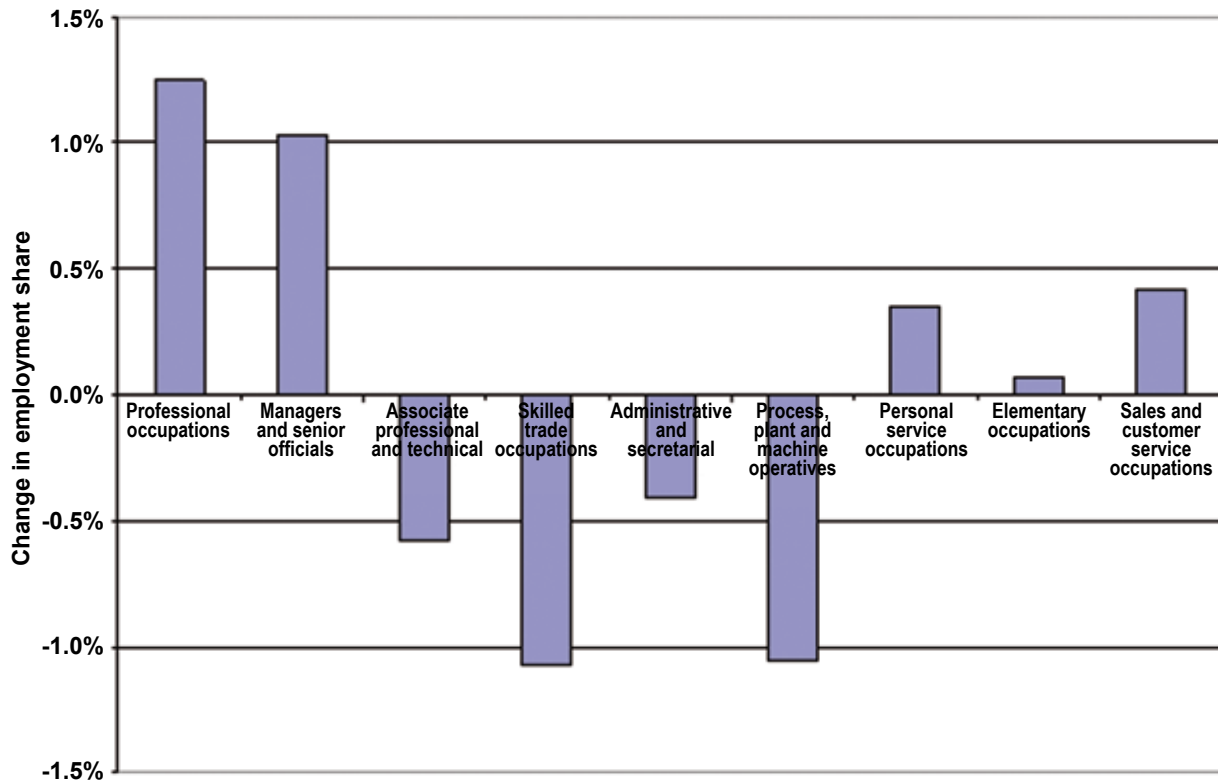
¹⁷ Wage data are from the Annual Survey of Hours and Earnings

Figure 1: Changes in the structure of occupational employment: 2001-2007



Source: Labour Force Survey, Q3 2001 & 2007

Figure 2: Changes in the structure of occupational employment for men (ranked by average wage): 2001-2007

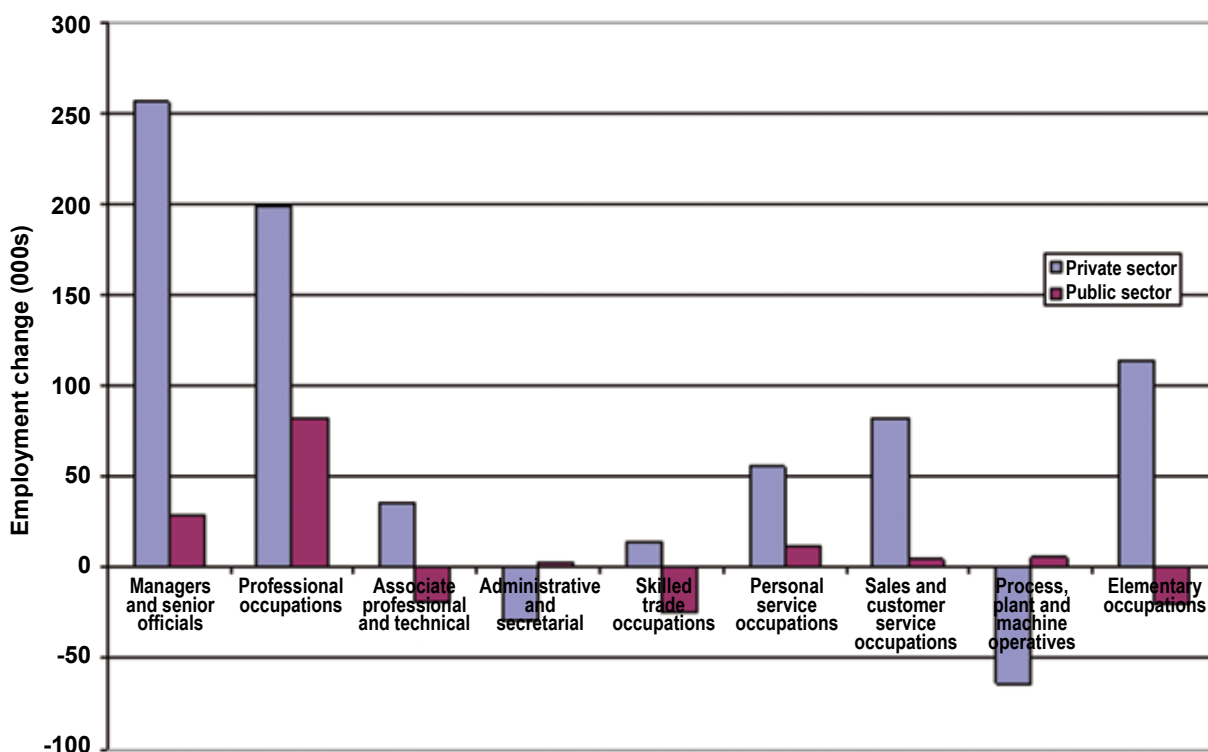


Source: Labour Force Survey, Q3 2001; 2007

A significant component of national employment growth in the 2000s was increasing public sector employment; it is therefore worth exploring how public sector growth has influenced patterns of labour market change.

Figure 3 shows details of occupational change between 2001 and 2007 by whether it was in the public or private sector.¹⁸ For men, in the seven year period prior to the recession the vast majority of employment growth was generated by the private sector (around 90 per cent). This includes strong private sector growth in highly skilled employment. That said, where the public sector did grow it was largely in professional and managerial occupations, where an additional 112,000 men were employed.

Figure 3: Changes in the structure of occupational employment for men by sector: 2001-2007



Source: Labour Force Survey, Q3 2001; 2007

While the major occupational level provides the general labour market trends, the minor occupational codes allow us to look with greater precision at the type of occupations which grew and declined the most. Table 1 and Table 2 in Appendix III present lists of the 20 fastest growing and declining occupations between 2001 and 2007, with the top and bottom five included in bullets in the text below. The list of fast declining occupations heavily features the type of routine manufacturing occupations which the theory of routinisation would predict. There were very pronounced losses in metal machining and forming

¹⁸ Public sector figures in the LFS are based on self-reporting and so deviate from the ONS estimates of public sector employment. The public sector figures in the LFS are known to over-estimate the size of the public sector because they can include university staff and agency workers. The data presented in the table are adjusted down to reflect this using the method suggested in Millard, B. and Machin, A. (2007) 'Characteristics of public sector workers' *Economic and Labour Market Review* 1:5, pp 46-54

occupations as well as in assembly, process and plant operative occupations. There were also notable drops in employment for men in several routine administrative occupations.

Five fastest declining jobs for men, 2001-2007:

- Metal machining, fitting, instrument making -93,926;
- Assemblers and routine operatives -64,688;
- Process operatives -53,726;
- Plant and machine operatives -53,650;
- Metal forming, welding and related -34,048.

The fastest growing occupations on the other hand are largely a mixture of management and professional occupations, construction jobs, and a number of elementary occupations – including personal service, sales, security, and cleaning. There was also growth in several sales and customer service occupations. Again this is what might be expected, as technological change is often complementary to professional jobs; while the types of service sector jobs which were growing are those that depend on either non-routine manual work, such as cleaning and security occupations (which are difficult and expensive to mechanise), or those which depend on inter-personal skills, such as sales and customer service work.

Five fastest growing jobs for men, 2001-2007:

- Construction trades +121,707;
- Functional managers +117,254;
- Production managers +109,889;
- Engineering professionals +88,353;
- Sales assistants and retail cashiers +64,123.

The impact of recession and recovery on these trends for men are now considered. Figure 4 on page 15 explores changes in the labour market during, and in the period since, the recession. (with the blue bars representing the period of recession and the red bars the early recovery). The graph again presents information for change in employment share, the relative importance of different occupations, ranked by average wage. The figures need to be interpreted somewhat cautiously as changes in employment and unemployment tend to lag changes in GDP. This makes it quite difficult to disentangle changes which are the effect of recession and those which are genuinely linked to recovery. Taken together however, the figures do provide a good indicator of which groups of occupations have tended to perform better in a much more difficult economic environment and which have struggled.

Higher wage occupations tended to fare much better during the recession – as professional, managerial, and associate professional and technical occupations all grew in importance. In real terms this represented a net growth of around 75,000 jobs. There was a very significant fall in the number of jobs in

skilled trades occupations during the recession (these fell by around 195,000), partly reflecting the cyclical loss of construction employment. The recession also sped up structural decline in the process, plant and machine operative occupations which lost half a per cent of employment share, a fall of almost 120,000. Elementary occupations also fell considerably during the recession, while personal services continued to grow.

The early recovery period shows some interesting patterns, though it should be noted that this represents an emerging picture rather than an established trend.¹⁹ Professional occupations continued to experience relatively strong growth in the early recovery, and associate professional and technical occupations also grew. On the other hand managerial positions declined; most likely reflecting lagged cyclical job loss and corporate restructuring in the period following the recession. Skilled trades recovered somewhat, and sales and customer services and personal services continued to grow. The graph also shows that there was a strong recovery in elementary occupations, and for men this occupational group has seen the biggest net employment growth since the recession. This is important because although the economy has begun to create jobs, a significant number of these have been in the low-wage occupations (elementary occupations and sales and customer services).

Broadly speaking then the early recovery period for men can largely be seen as continuing the process of change in the labour market; with professional growth at the top end, a declining employment share among middle-wage occupations, and growth in some lower wage occupations.²⁰

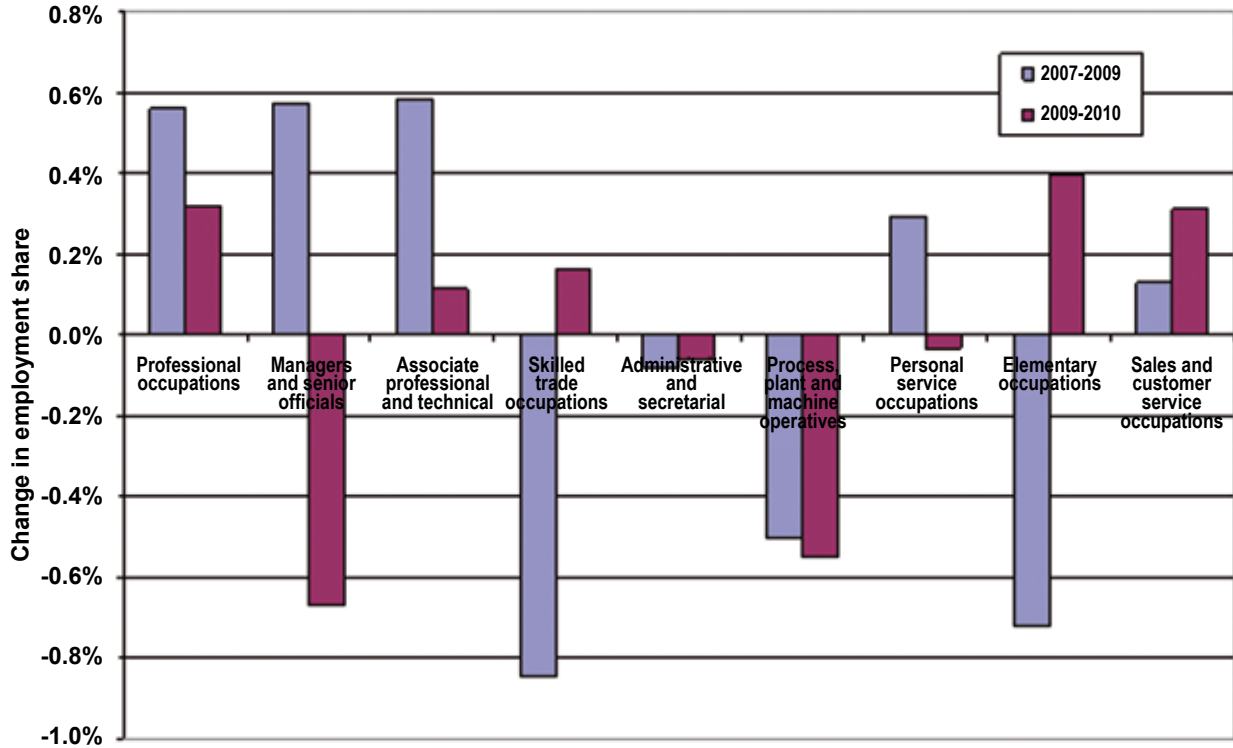
Employment change for women

Attention is now turned to employment change for women. Figure 5 on the next page provides information on changes in the employment share for women in the period of economic growth (2001-2007). For women, as with men, there is a strong growth in the importance of professional and managerial occupations. For women there was also strong growth in associate professional and technical occupations. Across these occupational groups net employment growth over the seven-year period was in excess of 850,000. On the other hand there was a sharp decline of 3.5 percentage points in the employment share of administrative and secretarial employment, as over the period more than a quarter of a million jobs were lost. There were also declines in process, plant and machine operatives, sales and customer services, and elementary occupations. This was balanced by strong growth in personal services jobs.

¹⁹ With the data covering up to Quarter 3 of 2010

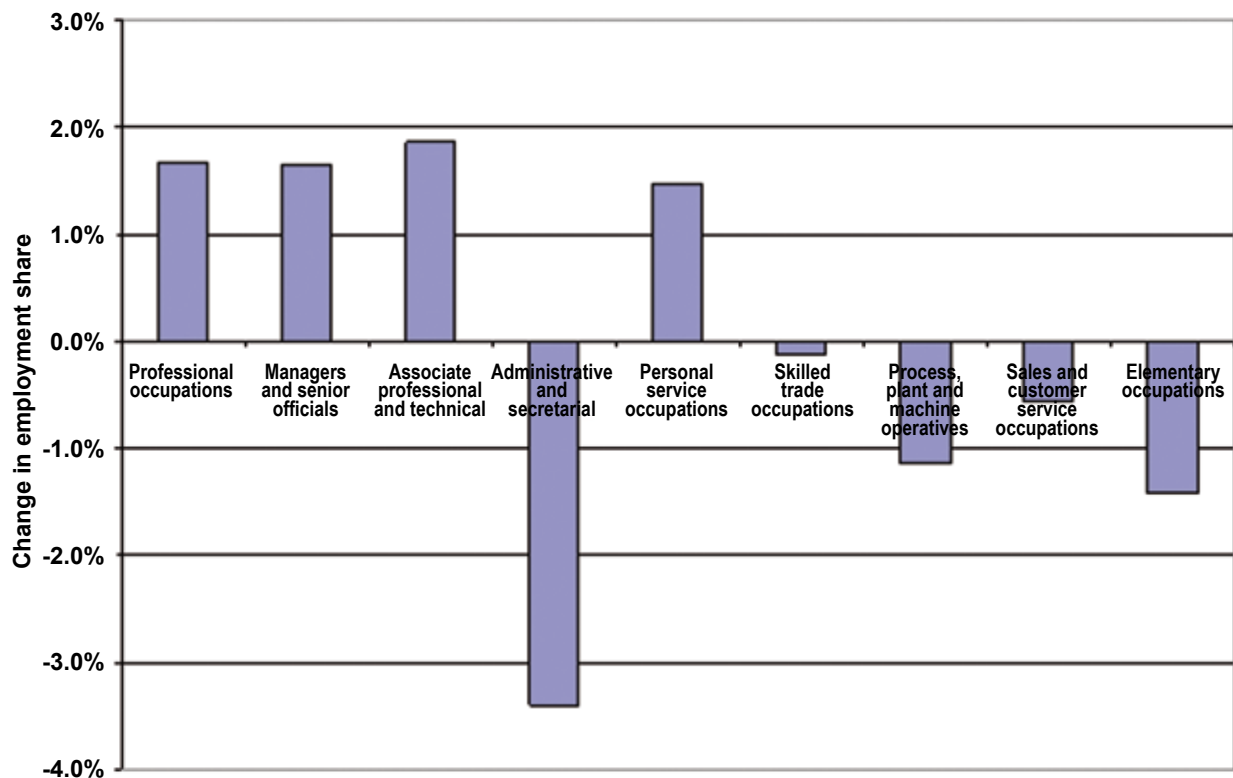
²⁰ The findings about growth at the top and the bottom end of the labour market, and the hollowing-out of the middle, are consistent with forecasts made prior to the recession about the future of the labour market. For example, see Lawton, K. (2009) *Nice work if you can get it: achieving a sustainable solution to low pay and in-work poverty* IPPR

Figure 4: Changes in the structure of occupational employment for men (ranked by average wage): 2007-2010



Source: Labour Force Survey, Q3 2007; 2009; 2010

Figure 5: Changes in the structure of occupational employment for women by sector: 2001-2007 (ranked by average wage)



Source: Labour Force Survey, Q3 2001; 2007

Figure 6 shows details of occupational growth by whether it was in the public or private sector, and here the figures for women contrast markedly with those for men.²¹ For women there was a strong trend towards public sector professionalisation in the period 2001-2007. More than half of all growth in professional and associate professional and technical occupations was accounted for by increased public sector employment (for managerial occupations it was in excess of a fifth). In total, across the top three occupations public sector growth accounted for just over 375,000 additional jobs. The public sector also generated more than 40 per cent of the increase in demand for personal service workers.

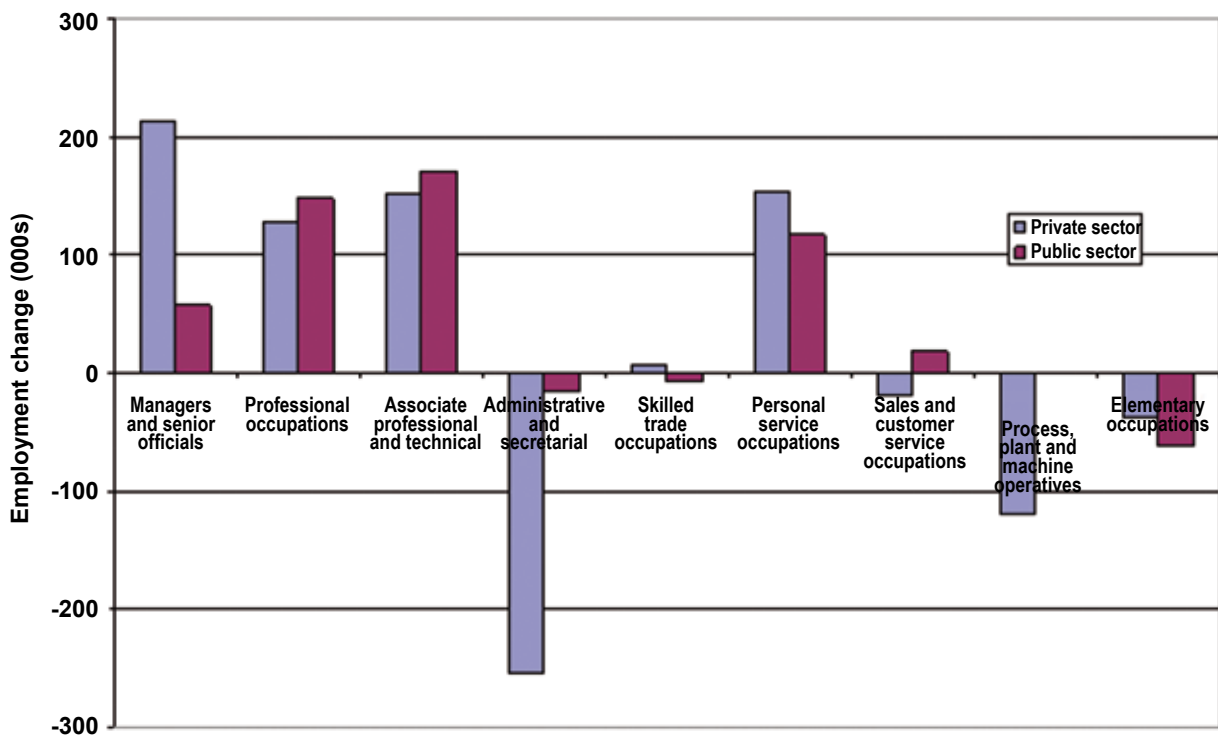
The importance of public sector employment growth for women, particularly in professional occupations, is quite striking. It is often argued that the public sector is more accommodating to women, particularly those with families, because of its more developed policies around flexible and family-friendly working. The proportion of women in the public sector may however have significant implications moving forwards in the context of public sector job cuts. It has been argued recently that women will be disproportionately affected by job losses. The extent to which this is true is difficult to judge, especially as women are well represented in two of the areas of government expenditure, education and health, which appear likely to be less impacted by spending cuts. It is also unclear at which occupational levels employment reductions will be most significantly felt. Nonetheless, there are several observations that it is worth making regarding reductions to public sector employment. Against the background of spending cuts it is important that the professional skills of women (and men) in the public sector are not lost or under-utilised as those who do lose jobs make the transition to private sector employment. It is also the case that public sector job cuts might increase the speed of labour market polarisation. Administrative and secretarial positions in the public sector were broadly stable between 2001 and 2007, while they were reduced significantly in the private sector. If one strand of cost savings relates to reducing back-office functions, then the public sector may see similarly dramatic declines in the numbers employed in these occupations going forward.²²

Looking in more detail at the occupations which created these longer-term patterns of change for women there again appears to be support for the routinisation thesis around the decline of routine occupations (full tables are Table 3 and Table 4 in Appendix III, top five growth/decline occupations are in the bullets below). There were very significant declines in the numbers working in secretarial and in finance and records administration occupations. These are three very obvious areas where recent advances in IT technology would reduce the demand for labour. There were also significant falls in employment in a number of manual process occupations. Interestingly there were also sizeable declines in some of the occupations for which male employment grew significantly over the same period. These include sales assistants and retail cashiers and elementary cleaning and sales occupations. These trends suggest that during this period of growth the bottom of the labour market became significantly less gendered as women left and males entered low-wage retail and service jobs. Another point to note from the table is the importance of caring services (both healthcare and childcare) to the growth of personal services

²¹ Public sector figures are again adjusted as described previously

²² More generally it is also likely that public sector functions will be increasingly sub-contracted to the private sector as part of cost-cutting measures. This is likely to mean individual's performing the same function but working for lower wages and benefits

Figure 6: Changes in the structure of occupational employment for women by sector: 2001-2007



Source: Labour Force Survey, Q3 2001; 2007

employment for women. In the context of an aging population it is likely that employment in care services will continue to grow significantly in future years.

Top five fastest declining jobs, women 2001-2007:

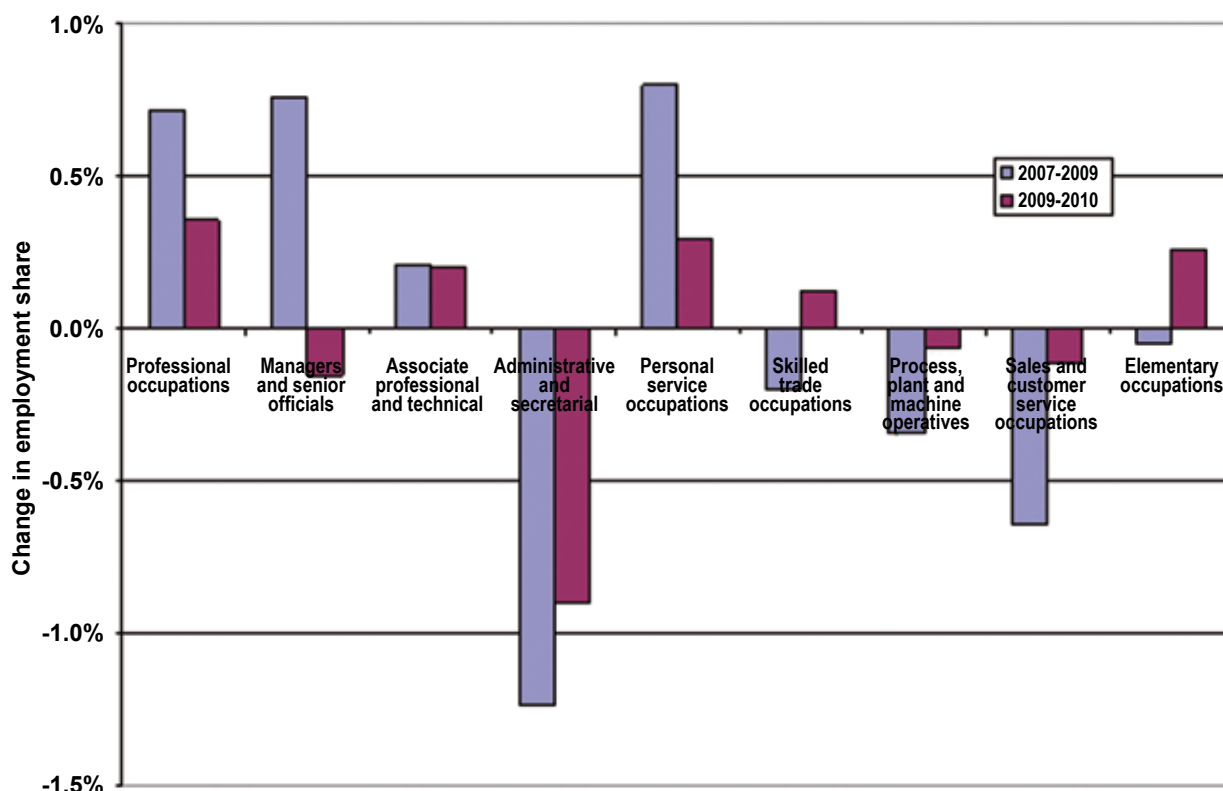
- Secretarial and related occupations -127,895;
- Assemblers and routine operatives -96,387;
- Administrative occupations: finance -92,641;
- Administrative occupations: records -80,003;
- Sales Assistants and retail cashiers -51,301.

Top five fastest growing jobs, women 2001-2007:

- Childcare and related services +184,172;
- Functional managers +126,445;
- Teaching professionals +103,343;
- Health associate professionals +76,081;
- Healthcare and related personal services +56,372.

Looking at the recession and recovery for women, professional occupations continued to grow in importance through the recession and into the early recovery period (Figure 7).²³ The decline in managerial occupations since the recession has been less significant for women than for men, something which may reflect women’s greater proportional representation in the public sector. Personal services employment also continued to grow strongly in both the recession and early recovery period. Administrative and secretarial work continued to decline in employment share, and in net terms employment fell by almost 250,000 during the recession and in the early recovery. As was the case for men, the early recovery period has seen a strong pick-up in the importance and number of elementary jobs, and for women this reverses a historical trend of decline.

Figure 7: Changes in the structure of occupational employment for women (ranked by average wage) 2007-2010



Source: Labour Force Survey, Q3 2007; 2009; 2010

²³ Again it should be noted that the early recovery data are an emerging picture rather than established trend

Employment and skills

The types of change in the labour market which have been described have important implications for the demand for skills. There is a large body of international evidence which shows that low levels of skills and qualifications are associated with worse employment outcomes; with low skill levels reflected in lower salaries, as well as increasing an individuals' risk of being out of work.²⁴

The difficulties which unskilled workers face in accessing employment, which they experience even in strong periods of growth, are likely to have increased markedly during the recession and since. As competition for jobs across all levels is intense, in cases where relatively greater skilled workers have lost employment they can 'bump-down', and can compete with unskilled workers for the lower-wage/ lower-skilled jobs that are available.²⁵ This process has two implications. For those with fewer skills it can intensify the competition for low-wage jobs and can increase the penalty for unemployment – so that when unskilled workers lose jobs it becomes much more difficult to find alternative work. For those who are bumping-down there are also concerns around both wage declines and the potential under-utilisation of skills.²⁶

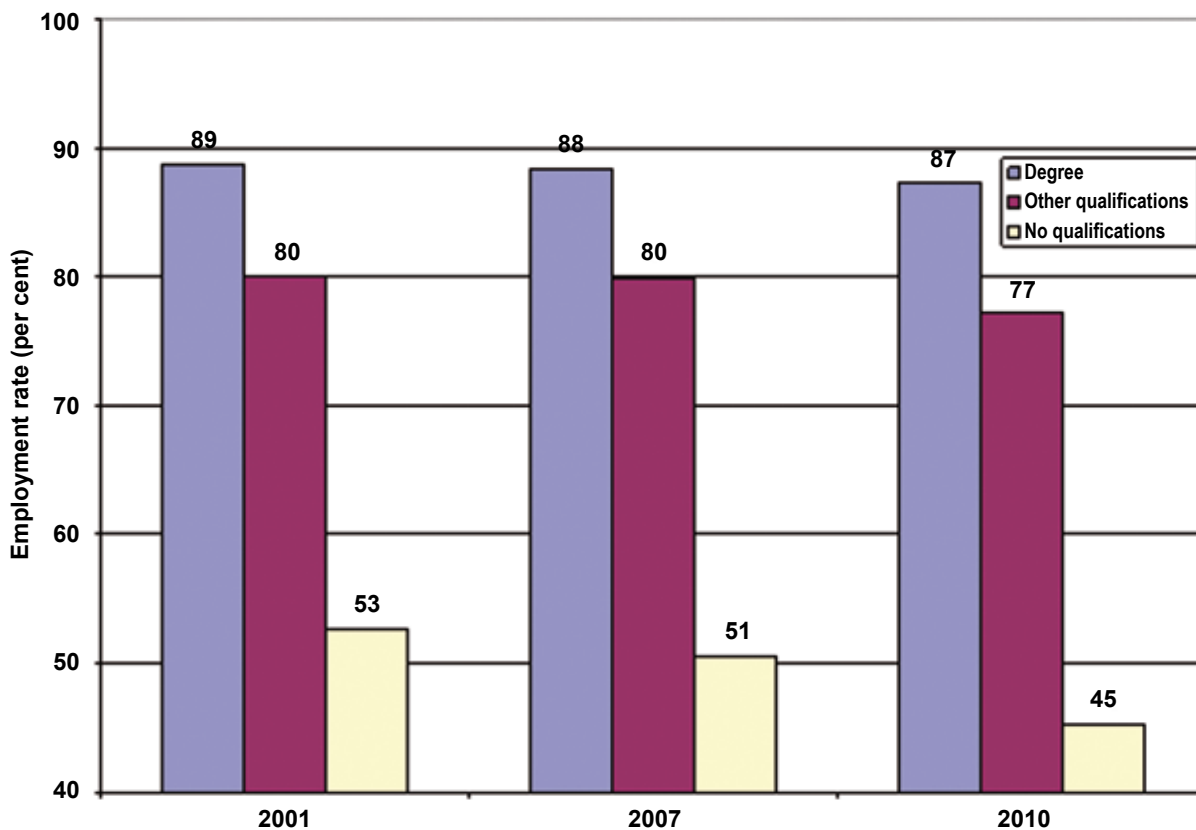
Figure 8 on the next page shows changes in the employment rate for workers with a degree and those with no qualifications over the past ten years. Across the period those who had no qualifications were much more likely to be out of work than those who had a degree. In 2001, just 53 per cent of those without qualifications were in work compared to 89 per cent of those with a degree. By 2007, while the proportion with those with a degree who were in employment had been broadly stable, the employment rate among those with no qualifications had declined by two percentage points. The 2010 figures show an ever starker contrast; while the employment rate of those with a degree dipped by just a single percentage point during the recession and early recovery, the employment rate for those with no qualifications had fallen by six percentage points. It is likely that this much greater fall among those with no qualifications in part reflects the nature of increasing competition in the labour market for lower wage occupations.

²⁴ Dickens, R., Gregg, P. and Wadsworth, J. (2000) 'New Labour and the labour market' in *Oxford Review of Economic Policy* 16:1, pp95-113; Lyly-Yrjaninen, M. (2008) *Who needs upskilling? Low-skilled and low-qualified workers in the European Union* Eurofound Research Report; Vickery, J. (1999) *Unemployment and skills in Australia* Reserve Bank of Australia Discussion Paper 1999-12; Wilson, R. and Hogarth, T. (2003) *Tackling the low skills equilibrium: a review of issues and some new evidence* London, DTI; Berthoud, R. (2003) *Multiple disadvantage in employment* Bristol, Joseph Rowntree; McIntosh, S. (2004) *The value of vocational qualifications on the labour market outcomes of low-achieving school leavers* Centre for Economic Performance Discussion Paper: 621, London School of Economics; McIntosh, S. and Vignoles, A. (2000) *Measuring and assessing the impact of basic skills on labour market outcomes* Centre for the Economics of Education, London School of Economics

²⁵ Gordon, I. (1999) 'Move on up the car: dealing with structural unemployment in London' *Local Economy*; Green, A. (2009) *Geography matters: The importance of sub-national perspectives on employment and skills* UKCES Praxis No. 2

²⁶ Skills under-utilisation in the labour market more generally will be the focus of a subsequent Bottom Ten Million publication

Figure 8: Employment rate of the working-age population by highest qualifications: 2001-2010



Source: Labour Force Survey, Q3 2001; 2007; 2010

3. Earnings and inequality

Previous research has highlighted a substantial increase in income inequality in Great Britain over the past 30 years with the Gini coefficient the most widely used measure of inequality increasing from 0.25 in 1979 to 0.34 in the early 1990s.²⁷ However, since the early 1990s the growth in income inequality has been less pronounced, and where inequality has grown it has been driven largely by strong income growth among the very rich (the top 1 per cent) and slow income growth among those at the very bottom.²⁸ Indeed, much of the recent public discourse (on ‘bankers bonuses’ and CEO pay) has been heavily focused on earnings near the very top of the income distribution. Looking specifically at wages rather than income, the evidence also shows that overall during the 1980s wage inequality rose markedly, and that this pattern continued into the 1990s albeit at a slower rate.²⁹ Another important observation about wage inequality in the 1980s and 1990s was that the gap in wages between entry level jobs and other jobs increased, meaning that those in the least skilled jobs saw their wages grow more slowly – creating a growing earnings gap.³⁰

Moving into the 2000s, previous research has shown that wages grew relatively steadily in real terms over the first half of the decade before flattening-out from 2006 onwards.³¹ The rest of this section describes what has happened to wages at the top and the bottom of the labour market. The analysis draws on data from the Annual Survey of Hours and Earnings (ASHE).³² There are two points to note about the use of ASHE:

- There are two discontinuities in the ASHE data in 2004 and 2006 because of changes in the survey methodology. In the analysis these are presented as overlapping lines to show the difference at the time points where the methodology changes. In reality these changes have little impact on the trends of interest.
- More generally, ASHE is used to provide evidence for increasing wage inequality rather than income inequality more generally. ASHE data relates solely to wages and does not include information about earnings from self-employment or income derived from investments which have been shown to make a significant contribution to the wealth of those at the top of the income distribution.³³

Figure 9 looks at what has happened to male earnings over the past decade. The figures use gross hourly earnings as the indicator of change over the period, and nominal change is indexed to wage rates in 2000. The graph presents changes to wage earnings at three levels. The median is the wage rate

²⁷ Brewer, M., Sibieta, L. and Wren-Lewis, L. (2008) *Racing Away? Income Inequality and the evolution of high incomes* IFS Briefing Note No. 76

²⁸ Ibid

²⁹ Kasparova, D., Wyatt, N., Mills, T. and Roberts, S. (2010) *Pay: Who were the winners and losers of the New Labour Era* The Good Work Commission

³⁰ Gregg, P. and Wadsworth, J. (2000) ‘Mind the gap, please: The changing nature of entry jobs in Britain’ *Economica*, 67, pp499-524

³¹ Kasparova, D., Wyatt, N., Mills, T. and Roberts, S. (2010) *Pay: Who were the winners and losers of the New Labour Era* The Good Work Commission

³² ASHE data is drawn from a 1 percent sample of Pay As You Earn (PAYE) records and covers employees only. Unlike the previous analysis the ASHE coverage is UK-wide

³³ Brewer, M., Sibieta, L. and Wren-Lewis, L. (2008) *Racing Away? Income Inequality and the evolution of high incomes* IFS Briefing Note No. 76

for the middle earner; the 90th percentile is the top ten per cent of earners, and the 10th percentile is the bottom ten per cent of earners. The three lines enable us to say something about:

- Overall wage inequality – the difference between top and bottom earners;
- Upper-tail wage inequality – the difference between top earners and middle earners;
- Lower-tail wage inequality – the difference between middle and bottom earners.³⁴

For men there has been an increase in overall wage inequality between the top and bottom. This divergence is accounted for almost entirely by a rise in upper-tail wage inequality, as the wages of those at the top have grown more quickly than those in the middle (and at the bottom).³⁵ By contrast lower-tail inequality has been broadly flat during the entire period. It may be that the stable pattern in lower-tail inequality is partly explained by the impact of increases to the National Minimum Wage. While the minimum wage rate is slightly below the 10th percentile, it is possible that rises in the NMW rate has ‘spilled-over’ into increases in wages for earners above the threshold.³⁶

For women the wage patterns over the decade were somewhat different. While previous research has shown that wage inequality among women grew in the 1980s and first half of the 1990s, this was not the case in the 2000s. There was almost no change in wage inequality over the period, with very little divergence in wage growth between high, low and middle earners (see Figure 10). Again the minimum wage may have had an impact for women at the bottom of the labour market, and it is likely to be stronger than that for men as the minimum wage value is above the 10th percentile at several of the data points. It is also likely that the importance of public sector job creation in personal service roles has supported wage growth at the bottom end.

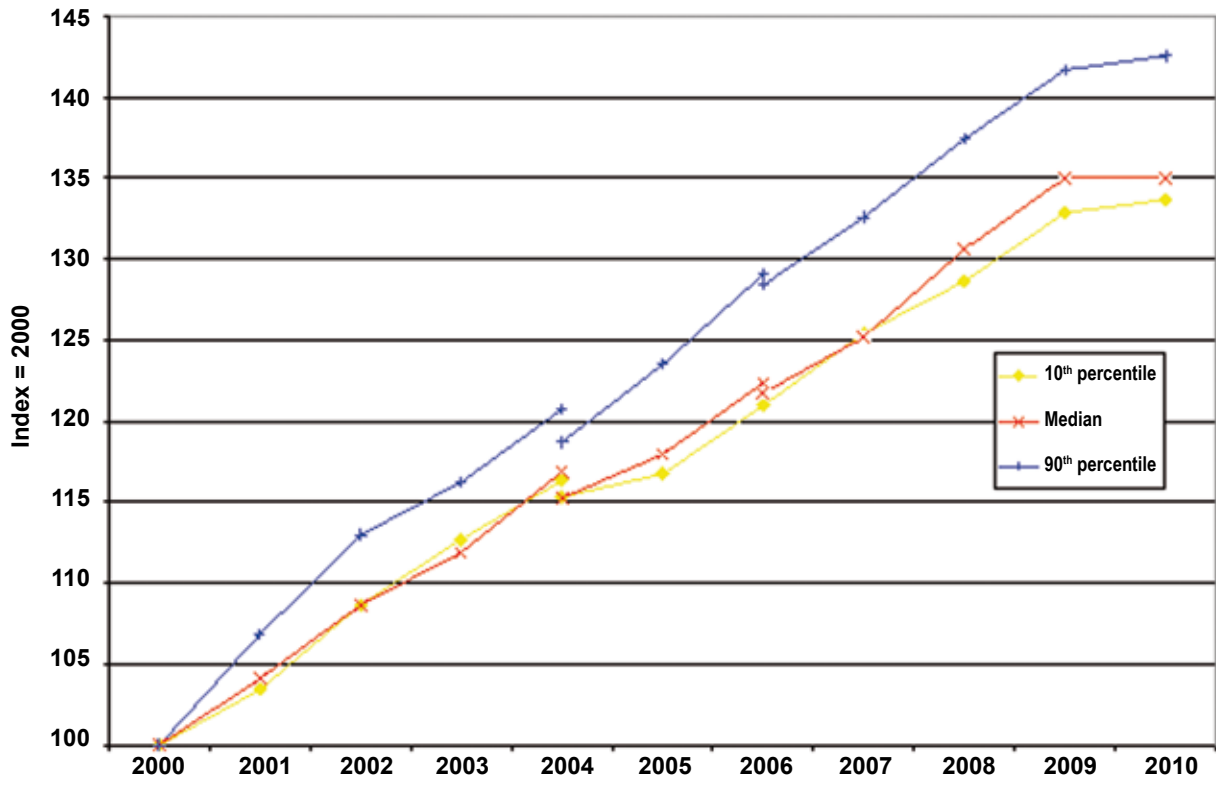
Overall the wage evidence suggests that the longer-term changes in employment structure have had a relatively benign influence on wage inequality. However, as discussed in the next section, where the impact of employment change may have been more significant is in its impact on wage mobility.

³⁴ See Machin, S. (2008) *Big ideas: Rising wage inequality* Centrepiece Autumn 2008

³⁵ This trend towards upper-tail wage inequality is also reported by Machin, S. (2010) *Changing wage structures: trends and explanations* (<http://personal.lse.ac.uk/machin/drafts/machin%20paper%20for%20metcalf%20volume%20september%202010.pdf>)

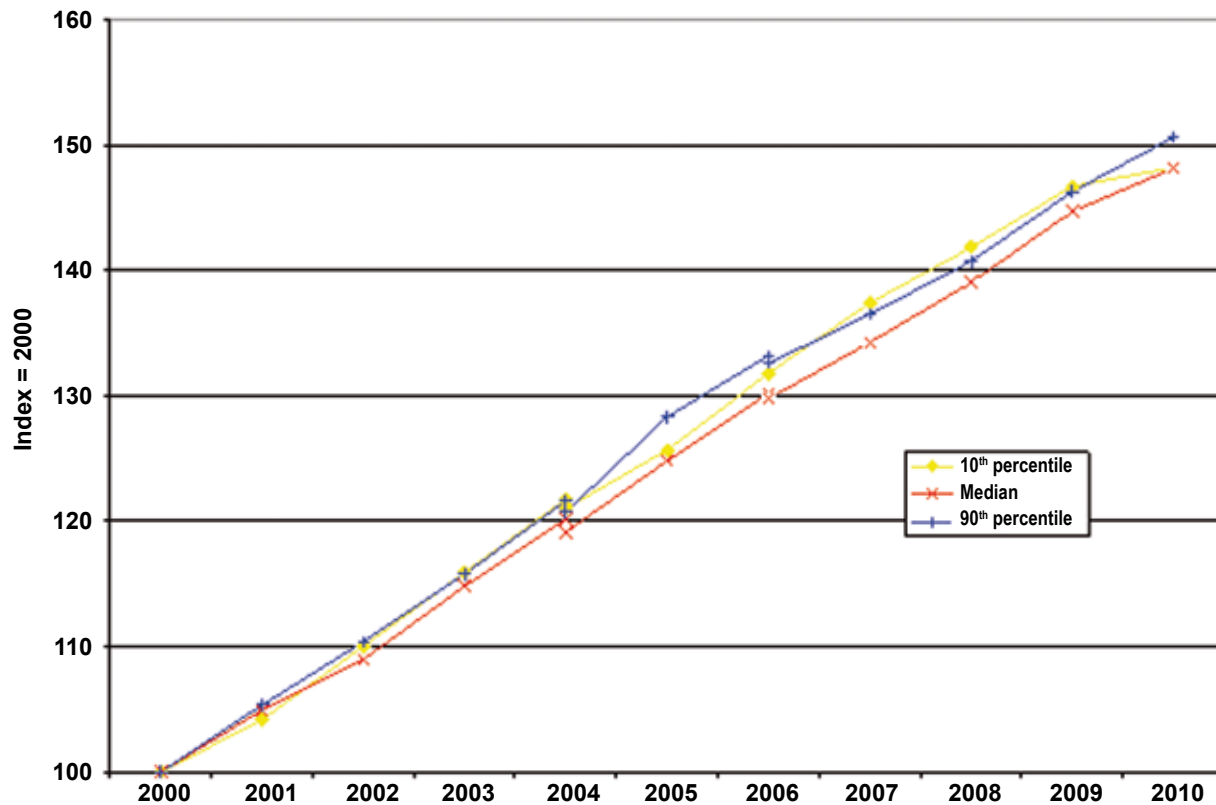
³⁶ While there is evidence for such spill-overs in other countries, the UK evidence for this impact is somewhat mixed. See National Minimum Wage Low Pay Commission Report 2010; Fauth, R. and Brinkley, I. (2006) *Efficiency and labour market polarisation*, The Work Foundation, London; Dickens, R. and Manning, A. (2004) ‘The National Minimum Wage and wage inequality’ *Journal of the Royal Statistical Society A*167, pp 613-626; Stewart, M. (2011) *Quantile estimates of counterfactual distribution shifts and the impact of minimum wage increase on the wage distribution* Warwick Economic Research Papers No. 958

Figure 9: Nominal wage change based on hourly wages, men, 2000-2010



Source: Annual Survey of Hours and Earnings, 2000-2010

Figure 10: Nominal wage change based on hourly wages, women, 2000-2010



Source: Annual Survey of Hours and Earnings, 2000-2010

4. Mobility in the labour market

Increased polarisation in the labour market may reduce the potential for earnings mobility; the ability of individuals to move up the earnings distribution. Here evidence is used from the British Household Panel Survey (BHPS) to investigate the level of earnings mobility workers experienced during the 2000s. The BHPS is a longitudinal survey of households which began in 1990 and which re-surveys panel members annually. The BHPS provides detailed information about, among other things, households living circumstances, employment, income, health and demographics. The BHPS data used covers the period 2001/2002 and 2008/2009 (Waves 11 and 18).³⁷

The BHPS is used here to both describe the level of mobility across earnings as well as to investigate the characteristics associated with immobile low-wage earners. A variable for hourly wage was calculated in order to adjust for different patterns of working hours. The analysis looks at earnings mobility among those who were in work at the two points of analysis (2001/2002 and 2008/2009). This enables us to get a sense of relative mobility in earnings. The analysis segments the in-work population into deciles, which are a division of the wage earning population into ten equal segments.

Figure 11 presents information on the experiences of those in the bottom earning decile in 2001/2002 by 2008/2009. One-third of those who were in the bottom ten per cent of earners in 2001/2002 remained there in 2008/2009; while more than 60 per cent who were in the bottom ten per cent remained within the bottom three deciles, which broadly equates to our definition of the 'Bottom Ten Million'.³⁸ This shows that a sizeable proportion of low-earners are finding themselves trapped at the bottom-end of the labour market and are unable to increase their earnings significantly even over a relatively long period.

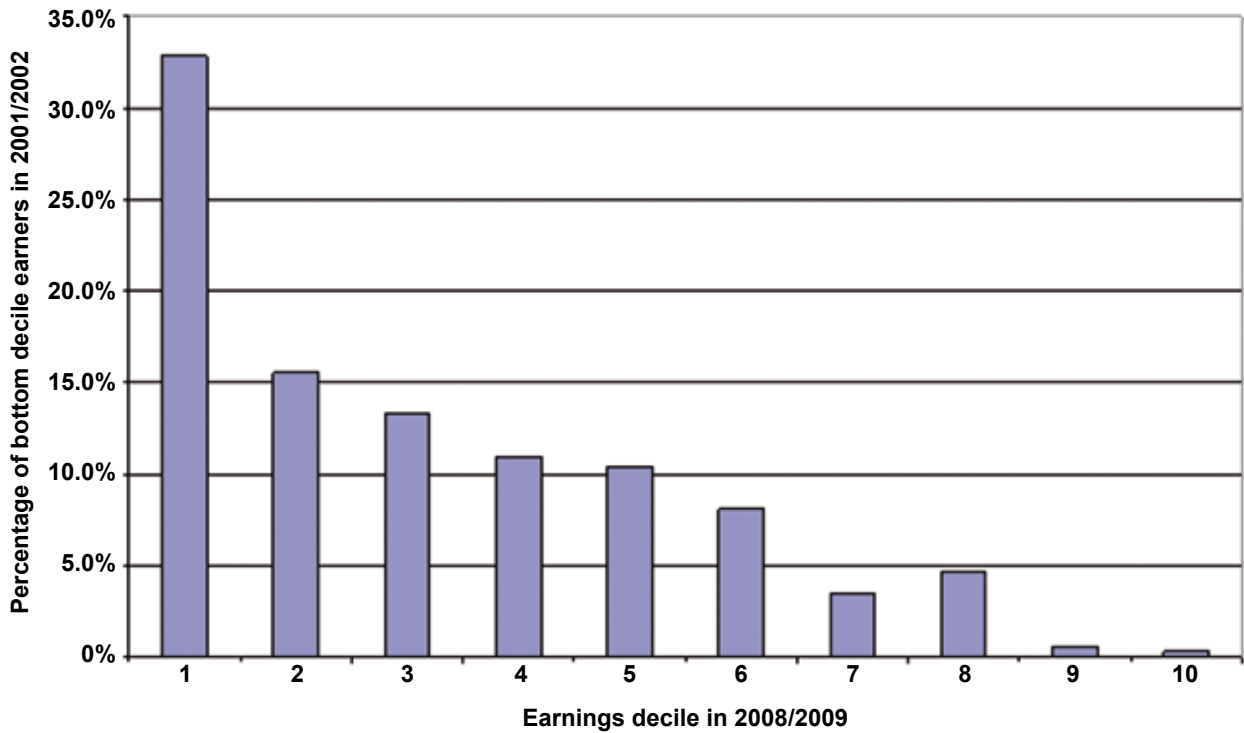
Figure 12 looks at the incidence of low-wage immobility by occupation, providing information about the proportion of each occupational group (in 2008/2009) which had been in the bottom quintile of the wage distribution in both 2001/2002 and 2008/2009.³⁹ In excess of 60 per cent of those working in sales and customer services occupations in 2008/2009 had been in the bottom quintile in 2001/2002, for those in elementary occupations the figure was 41 per cent, and for personal service occupations 37 per cent.

³⁷ All data are weighted using longitudinal weights. The data are also 'trimmed', with outliers with implausibly low-wages (of less than £1 an hour) removed

³⁸ The full deciles transition matrix is reported in Appendix IV

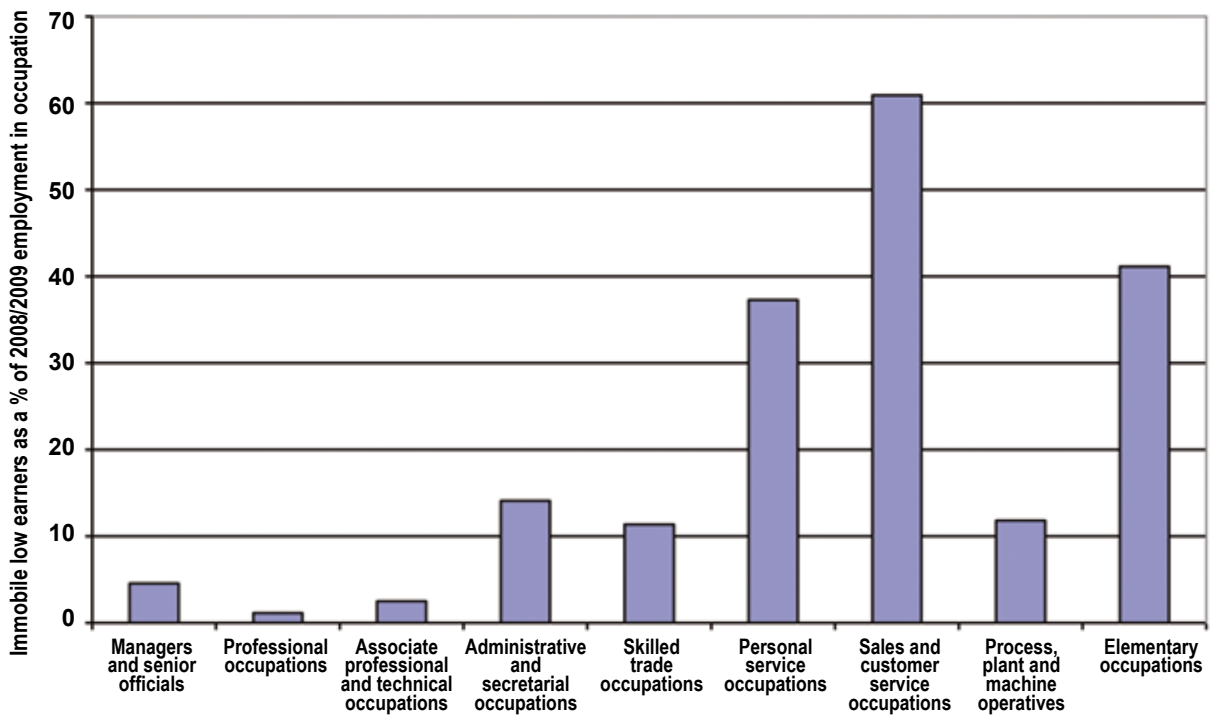
³⁹ Quintiles divide the wage earning population into five equal segments and reduce some of the 'noise' associated with the use of deciles

Figure 11: Earnings mobility in the 2000s based on hourly earnings



Source: British Household Panel Survey, 2001/2002: 2008/2009

Figure 12: Immobile low-earners by 2008/2009 occupation



Source: British Household Panel Survey, 2008/2009

The analysis so far provides a sense of scale of low-wage immobility but tells us little about the workers who remain stuck in low-wage jobs. The BHPS can also tell us something about these characteristics:⁴⁰

- 21 per cent of immobile low-earners had no qualifications, this compared to 5 per cent of the rest of the cohort who were in employment at both waves;
- Just 5 per cent of immobile low-earners had qualifications at degree level;
- 79 per cent of immobile low-earners were women, compared to 43 per cent of the rest of the cohort;⁴¹
- 50 per cent of immobile low-earners were working part-time in 2009;
- There is also a geographical dimension to continuing low-earning, with greater relative mobility of low-earners in London and the South East.

There are therefore a number of key characteristics associated with remaining in low-wage work; qualifications are clearly important for moving up the earnings distribution, while women and part-time workers also appear less mobile. It is also true that being in London or the South East appears to reduce the likelihood of remaining in low-wage jobs. This finding is unsurprising given these regions have relatively more diverse economies, as well as being strong performers in employment generation over the last decade. Other things being equal a greater availability of jobs will enable low-wage earners to achieve wage progression by moving between employers.

Finally it is important to note that while this section has focused on transitions among panel members who have remained in employment, it is also the case that there is a large body of evidence which shows that low qualifications are also associated with an increased risk of spending time unemployed or inactive.⁴²

What can be done to boost earnings mobility?

Social mobility is a topic which has received considerable attention in the discourse of the Coalition government in recent months. However in many cases social mobility is discussed in the context of inter-generational mobility. This ignores the large numbers of workers already in employment who are struggling on low wages for extended periods. This paper has sought to draw attention to this issue in the context of a changing labour market.

⁴⁰ The immobile low-earners figures relate to those who were in the bottom quintile in both 2001/2002 and 2008/2009. The figures are concerned with the hourly wage variable however the relationships are broadly unchanged if full-time work is considered instead

⁴¹ This pattern in part reflects the greater representation of women in part-time positions and the difference is much less pronounced if only those cases working full-time are considered

⁴² For example see Bradley, S., Crouchley, R. and Oskrochi, R. (2001) *Social Exclusion and labour market transitions: a multi-state multi-spell analysis using the BHPS* Working Paper 000035, Lancaster University Management School, Economics Department

Research in the US has found a number of key factors which are associated with earnings progression:

- Educational attainment is strongly linked to earnings progression;
- Switching jobs voluntarily can boost to earnings. Although frequent job changes (more than one a year), and those which are involuntary, are associated with lower wages;
- High earnings at the outset are linked to higher wage growth over time;
- Earnings growth differs by occupation – with higher earnings growth in clerical and production occupations, but the lowest earnings growth in sales occupations.

Source: Strawn and Martinson, 2001 and Clymer et al, 2001 summarised in Atkinson and Williams⁴³

Given the growing evidence for increasing polarisation in the labour market and the hollowing-out of middle-wage jobs, as well as the evidence for a substantial degree of long-term relative wage immobility for low-earners, it is important to ask what can be done to boost earnings mobility for low-wage workers. The ways policy can support increased mobility in-work are now discussed.

In order to support progression within low-wage work ‘career ladders’ can be developed to promote advancement either in an occupation or into an occupation with similar skills needs. There are a number of examples which have been developed in the US in a range of sectors, for example healthcare and customer services, several of these are summarised in Box 1.

Box 1: Examples of career ladder initiatives for low-wage workers

Massachusetts Extended Care Career Ladder Initiative (ECCLI) – a project to improve the quality of care in nursing homes by improving workers’ skills. Grants were provided to fund training and career ladders which focused on lower-level jobs, for example food service and patient care assistants, through to Certified Nursing Assistants.

Jobs with a Future Partnership – based in Wisconsin, created a training programme in phlebotomy which provided a career progression pathway for low-paid workers in the health care sector. The programme offered a six-week training course which enabled Certified Nursing Assistants to move up into entry-level phlebotomist positions.

Tri County Job Ladder Partnership – a collective of employers and community colleges created career and educational pathways across four sectors; manufacturing, customer relations, information technology and health services.

Source: Summarised from Kellard et al (2002); Mitnik and Zeidenberg (2007); and Duke et al (2006)⁴⁴

⁴³ Atkinson, J. and Williams, M. (2003) *Employer perspectives on recruitment, retention and advancement of low pay, low status employees* IES Research Report

⁴⁴ Kellard, K., Adelman, L., Cebulla, A. and Heaver, C. (2002) *From job seekers to job keepers: job retention, advancement and the role of in-work support programmes* DWP Research Report Series No. 170; Mitnik, P. and Zeidenberg, M. (2007) *From bad to good jobs: An analysis of the prospects for career ladders in the service industries* Center on Wisconsin Strategy; Duke, A. E., Martinson, K. and Strawn, J. (2006) *Wishing up: How Government can partner with business to increase skills and advance low-wage workers* Center for Law and Social Policy

There is however a drawback with over-emphasising the role that career ladders might have within certain industries. In particular there is a question over whether in some of the faster growing service sectors, career pathways are likely to do significantly more than share disadvantage around. Mitnik and Zeidenberg analysed the potential for career ladders from low-wage service work in the US. They found that the potential for career ladders differs significantly between different industries because of the nature of their employment structures. In particular they cite the importance of the proportion of low-wage to higher wage jobs in an organisation. Their analysis finds careers ladders in service sectors are likely to compare poorly with those that have existed historically in construction and manufacturing sectors. Within this overall picture some sectors potentially offer better advancement, including schools, hospitals and banking.⁴⁵ It is also worth noting that at the firm level, large firms tend to offer greater opportunities for internal career progression.⁴⁶

There are also other policy measures that can help to promote career advancement for low-wage workers. Good quality careers advice for those in work can help support career change and progression.⁴⁷ Again there are examples from the US, particularly of welfare to work providers working with former participants of their programmes to support their progression once in work.⁴⁸ This is something that is likely to be very significant in the British context given the strong emphasis of the Work Programme on sustainable jobs and payment by outcomes. It is therefore important that Work Programme providers offer not just a route into work, but a route into work that offers the chance for progression – something which is of critical importance in addressing the low-wage/no-wage cycle between work and benefits. In this context it may be appropriate for policymakers to look at ways to set incentives that encourage and reward progression in-work as well as sustainability.

Lifelong learning also has a role in allowing workers to up skill and has been shown to increase wage returns. These returns are estimated to be relatively small if they don't involve an upgrade of qualifications, but generate higher returns if they do; with the returns being greatest for those starting with the lowest qualifications.⁴⁹ Policymakers should therefore work with employers to ensure there is the provision of support for their workers to take up learning opportunities.⁵⁰

⁴⁵ In the UK the NHS developed a skills strategy for workers called the *Skills Escalator* to promote skills development, lifelong learning and to increase chances of progression

⁴⁶ Duke, A. E., Martinson, K. and Strawn, J. (2006) *Wishing up: How Government can partner with business to increase skills and advance low-wage workers* Center for Law and Social Policy

⁴⁷ While the evidence suggests that careers advice has beneficial impacts, the exact nature and magnitude of these is difficult to measure. See OECD (2004) *Career guidance and public policy: Bridging the gap* OECD, Paris; Killeen, J. and White, M. (2003) *Outcomes from career information and guidance services*, OECD, Paris; Pollard, E., Tyers, C., Tuohy S. and Cowling, M. (2007) *Assessing the net added value of adult advice and guidance* Department for Education Research Report RR825A

⁴⁸ Kellard, K., Adelman, L., Cebulla, A. and Heaven, C. (2002) *From job seekers to job keepers: job retention, advancement and the role of in-work support programmes* DWP Research Report Series No. 170

⁴⁹ See Dorsett, R., Lui, S. and Weale, M (2010) *Economic Benefits of Lifelong Learning* Centre for Learning and Life Chances in Knowledge Economies and Societies. For a brief review of the evidence on lifelong learning see Crawford, C., Johnson, P., Machin, S. and Vignoles, A. (2011) *Social Mobility: A literature review* BIS Report 11/750

⁵⁰ The Coalition Government announced in the White Paper *Skills for Sustainable Growth* the roll-out of Lifelong Learning Accounts and this is a development to be welcomed

Another option is to develop public-private workforce development programmes which provide workers with skills of value to other employers and sectors. Again there are examples in the US of this type of programme. The *Georgia State-wide Certified Specialist Programs*, a partnership of state government and large employers, developed standardised state-wide curriculum and certification for workers in a number of key sectors which are readily portable between employers.

There has also recently been a much more ambitious call to 'upgrade' low-wage service work as the solution to the issue of low-wage immobility. Researchers at the University of Toronto advocate more service sector firms taking the 'high-road' by investing in workers skills to enable them to perform at a higher standard.⁵¹ They argue that this creates a win-win for workers and employers, as employees perform at a higher and more productive standard. They are also able to identify a number of case study employers in the US and Canada who have done this. Richard Florida, the Director of the Institute carrying this research, argues that low-wage service jobs offer significant potential for innovation and productivity improvements, describing them as the 'last frontier of inefficiency'.⁵² Although the steps required to operationalise such an ambitious strategy are not easily defined, given that low-wage/low-skilled work appears to be an enduring feature of the labour market, such a wholesale approach potentially has highly positive effects and deserves to be assessed more fully.⁵³

⁵¹ See Cerevan, A. (2009) *Service class prosperity in Ontario* Working Paper Series: Ontario in the Creative Age Martin Prosperity Institute; Verma, A. (2009) *Low wage service workers: A profile* Working Paper Series: Ontario in the Creative Age Martin Prosperity Institute

⁵² Florida, R. (2010) 'America needs to make its bad jobs better' *Financial Times* 5 July 2010

⁵³ It has been suggested that government's could use tax incentives to 'nudge...companies to upgrade service jobs'. Florida, R. 'Tips of jobs from Zappos for US' *Financial Times* 3 May 2011

5. Conclusions and policy recommendations

This paper has reported on the important changes in the labour market which have occurred over the last decade. It has also sought to address the issue of earnings mobility, the question of not just how much people earn but whether they are able to advance. A number of key conclusions can be drawn from the evidence described:

- 1. There appears to be an ongoing process of the gradual hollowing-out of middle-wage occupations, creating increased polarisation in the labour market.** During the recession, and the seven years before it, occupations which have lost the largest number of jobs tend to be in middle-wage routine manual and non-manual occupations. For men this has meant the loss of a significant numbers of jobs in process, plant and machine operative occupations; for women it has meant large-scale reductions in the numbers working in administrative and clerical occupations.
- 2. There have been quite different patterns in labour market change observed between men and women.** For men, the pattern of labour market change and polarisation is more clearly defined. Growth in employment share has been concentrated solely among the top three and bottom three occupations (when ranked by wage). For women on the other hand there has been strong growth at the top-end in professional occupations, as well as growth in personal services. Women in particular have benefitted significantly from public sector professionalisation. Public sector employment accounted for more than 40 per cent of the jobs growth which occurred in the top three occupational groups for women (totalling more than 375,000 jobs).
- 3. During the recession employment in high-wage occupations for both men and women continued to grow.** High-skilled occupations also appear to be doing better in the recovery, although managerial occupations have started to decline, professional, and associate professional and technical jobs continue to grow in number. In contrast shares in administrative and clerical and plant and process occupations continued to decline rapidly in both the recession and early recovery, as the recession has sped-up structural changes in the labour market. At the low-wage end of the labour market **elementary jobs have also begun to increase since the recession for both men and women.** This may be important because although the economy has begun creating jobs, a significant number of these are in the low-wage occupations, meaning that those who lose jobs in relatively better paid and more skilled occupations may have to take work at a lower wage and skill level. This has implications for the under-utilisation of their skills.
- 4. The low-skilled have suffered in the recession as people with more skills bump-down in the labour market.** The employment rate for the unskilled fell markedly during the recession and it is likely that this, in part, reflects the nature of increasing competition in the labour market for lower wage occupations.

5. **Over the past decade wage inequality has not grown as rapidly as it did in the 1980s and much of the 1990s.** Indeed wage inequality among women was stable throughout the decade. For men there was a rise in overall inequality (between top and bottom) and this was driven by the faster rising wages among the top ten per cent of earners.
6. **One of the potentially damaging aspects of a more polarised labour market is that it may create additional barriers to earnings mobility.** Evidence from the British Household Panel suggests that **relatively large proportions of low-wage earners are not moving up from the bottom of the pay distribution even over relatively long periods of time**, with a third remaining rooted in the bottom decile. Those who are more likely to become trapped in low-wage work include individuals with no qualifications, women, and people working part-time.
7. **More needs to be done to address the needs of workers who are trapped in low-wage jobs.** In order to boost levels of social mobility, policy needs to address the barriers which individuals face to progression. A number of recommendations are made below to this end.
8. **More generally, there is a need to understand how these trends in the labour market are likely to develop going forward.** There are questions about whether growth in higher-skilled/ higher-wage jobs in the private sector will be sufficient to mitigate professional job loss in the public sector. While a significant influence on growth in retail and some personal services employment has been the growth in consumer spending. With inflation eroding wages and households remaining concerned about unemployment, household consumption has fallen⁵⁴ and it seems unlikely it will pick-up dramatically any time soon.

Policy recommendations

Low-wage workers can achieve earnings mobility through either advancement with their current employer or by moving jobs. There are a range of enablers to this which policy can support:

1. **Identify ways to upgrade service sector work.** Emerging work in Canada and the US has driven an ambitious call to 'upgrade' low-wage service work as the solution to the issue of low-wage immobility. Although the steps required to operationalise such a strategy are not easily defined, given that low-wage/ low-skilled work appears to be an enduring feature of the labour market such a wholesale approach has clear attractions. This approach should be given consideration in the UK context, in particular government should identify sectors and employers who are pursuing a 'high-road' approach, and evaluate the extent to which such models are applicable more broadly.

⁵⁴ Fisher, P. (2011) *The economic outlook: some remarks on monetary policy* Speech given to Agency for Scotland

- 2. Develop career ladders.** In some sectors work between employers, government and training providers to develop clear career ladders can offer progression opportunities for low-wage workers within the same employer. Initially however, there is a need for research to identify industries in which career ladders may offer the best chance of progression for low-earners. Given the lack of earnings mobility experienced by part-time workers there is a need to ensure that these types of pathways are inclusive and allow all workers to participate. The UK Sector Skills Councils with their strong employer links are well placed to play a central role in the successful design and operation of career ladders.⁵⁵
- 3. Welfare to (good) work.** It is important that the Work Programme providers engage effectively with sectors and employers to ensure that when they place people into work, it is work that offers some element of advancement and progression. This is important in order to address the problem of the low-wage/no-wage cycle between work and benefits.

It is also possible for workers to achieve wage mobility through moving jobs and there are a number of ways in which policy can support this:

- 1. Ensure good quality careers advice.** Careers advice for those in the workplace can help support career change and progression. There has been a push recently to make careers advice, through the Next Step service, part of the Jobcentre Plus offer to those who are out of work. However, in the context of earnings mobility the careers service needs be more visible to those already in low-paid employment. There is also a role for the careers service to effectively use Labour Market Information (LMI) to help assess with the people they are supporting what the opportunities for progression are in the occupations they are interested in.
- 2. Promote lifelong learning.** Upgrading of qualifications has been shown to increase earnings. Work with employers is needed to encourage provision of support for their workers to take up learning opportunities. Previous work has shown that support for training is particularly an issue in SMEs.

The nature of changes in the labour market in the last decade has created some specific policy questions going forward:

- 1. Facilitate the sector swap.** As such a significant proportion of the growth in professional work for women, and to a lesser extent men, was in the public sector, there is a concern going forward that these professional skills might be lost or degraded. There is therefore a rationale for establishing a public sector skills programme to ensure that the skills developed in the public sector are effectively transferred and utilised in the private sector.

⁵⁵ A example of the careers pathway approach which the SSCs have been involved with is the Women and Work Sector Pathways Initiative (WWSPI) which tested recruitment and career pathways for women in sectors and occupations where they have been under-represented and which have skills shortages

- 2. Re-skill and re-train.** It is equally important that longer-term structural economic changes are considered and that there is the availability of provision to enable individuals to identify transferable skills and/or to re-skill. While there has been increased availability for careers advice for jobseekers which addresses transferable skills, there is less support with fuller re-training.⁵⁶ To facilitate retraining for individuals coming out of occupations that are in terminal decline there maybe a case for greater flexibility in the benefits system to allow individuals to retrain. This would also enable valuable skills to be redirected towards growth sectors.

⁵⁶ Levesely, T., Sissons, P., Francis, R., Oakley, J. and Johnson, C. (2010) Qualitative evaluation of the integrated employment and skills trials: Implementation report DWP Research Report No. 618

Appendix I. Standard Occupational Classification 2000

Occupation	Description
Managers and senior officials	<p>This major group covers occupations whose main tasks consist of the direction and co-ordination of the functioning of organisations and businesses, including internal departments and sections, often with the help of subordinate managers and supervisors.</p> <p>Most occupations in this major group will require a significant amount of knowledge and experience of the production processes, administrative procedures or service requirements associated with the efficient functioning of organisations and businesses.</p>
Professional occupations	<p>This major group covers occupations whose main tasks require a high level of knowledge and experience in the natural sciences, engineering, life sciences, social sciences, humanities and related fields. The main tasks consist of the practical application of an extensive body of theoretical knowledge, increasing the stock of knowledge by means of research and communicating such knowledge by teaching methods and other means.</p> <p>Most occupations in this major group will require a degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training.</p>
Associate professional and technical occupations	<p>This major group covers occupations whose main tasks require experience and knowledge of principles and practices necessary to assume operational responsibility and to give technical support to professionals in the natural sciences, engineering, life sciences, social sciences, humanities and related fields and to managers and senior officials.</p> <p>The main tasks involve the operation and maintenance of complex equipment; legal, financial and design services; the provision of information technology services; providing skilled support to health and social care professionals; and serving in protective service occupations. Culture, media and sports occupations are also included in this major group.</p> <p>Most occupations in this major group will have an associated high-level vocational qualification, often involving a substantial period of full-time training or further study. Some additional task-related training is usually provided through a formal period of induction.</p>
Administrative and secretarial occupations	<p>Occupations within this major group undertake general administrative, clerical and secretarial work, and perform a variety of specialist client-orientated clerical duties. The main tasks involve retrieving, updating, classifying and distributing documents, correspondence and other records held electronically and in storage files; typing, wordprocessing and otherwise preparing documents; operating other office and business machinery; receiving and directing telephone calls to an organisation; and routing information through organisations.</p> <p>Most occupations in this major group will require a good standard of general education. Certain occupations will require further additional vocational training.</p>
Skilled trades occupations	<p>This major group covers occupations whose tasks involve the performance of complex physical duties that normally require a degree of initiative, manual dexterity and other practical skills. The main tasks of these occupations require experience with, and understanding of, the work situation, the materials worked with and the requirements of the structures, machinery and other items produced.</p> <p>Most occupations in this major group have a level of skill commensurate with a substantial period of training, often provided by means of work-based training programme.</p>
Personal service occupations	<p>This major group covers occupations whose tasks involve the provision of a service to customers, whether in a public protective or personal care capacity. The main tasks associated with these occupations involve the care of the sick and the elderly; the supervision of children; the care of animals; and the provision of travel, personal care and hygiene services.</p> <p>Most occupations in this major group require a good standard of general education and vocational training. To ensure high levels of integrity, some occupations require professional qualifications or registration with professional bodies.</p>

Occupation	Description
Sales and customer service occupations	<p>This major group covers occupations whose tasks require the knowledge and experience necessary to sell goods and services, accept payment in respect of sales, replenish stocks of goods in stores, provide information to potential clients and additional services to customers after the point of sale.</p> <p>The main tasks involve a knowledge of sales techniques, a degree of knowledge regarding the product or service being sold, familiarity with cash and credit handling procedures and a certain amount of record keeping associated with those tasks.</p> <p>Most occupations in this major group require a general education and skills in interpersonal communication. Some occupations will require a degree of specific knowledge regarding the product or service being sold, but are included in this major group because the primary task involves selling.</p>
Process, plant and machine operatives	<p>This major group covers occupations whose main tasks require the knowledge and experience necessary to operate and monitor industrial plant and equipment; to assemble products from component parts according to strict rules and procedures and to subject assembled parts to routine tests; and to drive and assist in the operation of various transport vehicles and other mobile machinery.</p> <p>Most occupations in this major group do not specify that a particular standard of education should have been achieved but will usually have an associated period of formal experience related training. Some occupations require licences issued by statutory or professional bodies.</p>
Elementary occupations	<p>This major group covers occupations which require the knowledge and experience necessary to perform mostly routine tasks, often involving the use of simple hand-held tools and, in some cases, requiring a degree of physical effort.</p> <p>Most occupations in this major group do not require formal educational qualifications but will usually have an associated short period of formal experience-related training.</p>

Source: Office for National Statistics⁵⁷

⁵⁷ Office for National Statistics (2000) *Standard Occupational Classification 2000: Volume 1 Structure and descriptions of groups* London, HMSO

Appendix II. Median wage by occupation, 2010

Occupation	Median gross hourly wage (£)
Managers and senior officials	18.52
Professional occupations	20.12
Associate professional and technical occupations	14.57
Administrative and secretarial occupations	9.66
Skilled trades occupations	10.83
Personal service occupations	8.27
Sales and customer service occupations	6.81
Process, plant and machine operatives	9.39
Elementary occupations	6.95

Source: Annual Survey of Hours and Earnings, 2010

Appendix III. Minor occupational change 2001-2007

Table 1: Twenty fastest declining male occupations, 2001-2007

Occupations	2001	2007	Change 01-07	% change
Metal machining, fitting, instrument making	405,839	311,913	-93,926	-23.1
Assemblers and routine operatives	252,320	187,632	-64,688	-25.6
Process operatives	291,935	238,209	-53,726	-18.4
Plant and machine operatives	219,258	165,608	-53,650	-24.5
Metal forming, welding and related	171,217	137,169	-34,048	-19.9
Sales and related associated professionals	263,278	232,980	-30,298	-11.5
Managers in other service industries	339,753	310,025	-29,728	-8.7
Elementary goods storage occupations	360,248	332,626	-27,622	-7.7
Elementary administration occupations	202,552	178,231	-24,321	-12.0
Administrative occupations: records	229,298	207,751	-21,547	-9.4
Science and engineering technicians	214,197	194,107	-20,090	-9.4
Electrical trades	457,278	437,438	-19,840	-4.3
Elementary process plant occupations	194,281	175,207	-19,074	-9.8
Administrative occupations: general	122,179	103,580	-18,599	-15.2
Protective service occupations	267,714	251,762	-15,952	-6.0
Corporate managers and senior officials	91,540	76,268	-15,272	-16.7
Sales related occupations	136,746	121,499	-15,247	-11.1
Textiles and garment trades	34,122	20,916	-13,206	-38.7
Printing trades	71,538	59,908	-11,630	-16.3
Elementary agricultural occupations	79,878	69,286	-10,592	-13.3

Source: Labour Force Survey, Q3 2001 & 2007

Table 2: Twenty fastest growing male occupations, 2001-2007

Occupations	2001	2007	Change 01-07	% change
Construction trades	758,854	880,561	121,707	16.0
Functional managers	773,086	890,340	117,254	15.2
Production managers	491,361	601,260	109,899	22.4
Engineering professionals	361,630	449,983	88,353	24.4
Sales assistants and retail cashiers	275,728	339,851	64,123	23.3
Business and statistical professionals	206,024	269,652	63,628	30.9
Teaching professionals	353,187	410,934	57,747	16.4
Elementary personal service occupations	159,360	213,315	53,955	33.9
Transport drivers and operatives	805,003	852,058	47,055	5.8
Business and finance associate professionals	281,700	324,210	42,510	15.1
Healthcare and related personal services	85,856	127,656	41,800	48.7
Customer service occupations	86,032	125,638	39,606	46.0
Elementary sales occupations	52,793	90,325	37,532	71.1
Elementary security occupations	158,998	194,936	35,938	22.6
Managers in distribution, storage and retail	355,930	390,461	34,531	9.7
Mobile machine drivers and operatives	147,353	181,712	34,359	23.3
Elementary cleaning occupations	199,321	230,562	31,241	15.7
Construction operatives	148,200	178,787	30,587	20.6
Building trades	219,467	248,658	29,191	13.3
Health professionals	130,892	156,798	25,906	19.8

Source: Labour Force Survey, Q3 2001 & 2007

Table 3: Twenty fastest declining female occupations, 2001-2007

Occupation	2001	2007	Change 01-07	% change
Secretarial and related occupations	902,708	774,813	-127,895	-14.2
Assemblers and routine operatives	202,364	105,977	-96,387	-47.6
Administrative occupations: finance	653,016	560,375	-92,641	-14.2
Administrative occupations: records	393,755	313,752	-80,003	-20.3
Sales assistants and retail cashiers	935,395	884,094	-51,301	-5.5
Elementary cleaning occupations	518,884	470,551	-48,333	-9.3
Elementary process plant occupations	116,096	77,264	-38,832	-33.4
It service delivery occupations	62,606	38,646	-23,960	-38.3
Leisure and travel service occupations	103,411	79,956	-23,455	-22.7
Process operatives	103,758	85,630	-18,128	-17.5
Printing trades	24,048	8,173	-15,875	-66.0
Administrative: communications	55,096	40,255	-14,841	-26.9
Elementary agricultural occupations	26,074	11,646	-14,428	-55.3
Food preparation trades	123,930	111,100	-12,830	-10.4
Information and communication technology	75,268	63,081	-12,187	-16.2
Plant and machine operatives	29,104	19,404	-9,700	-33.3
Elementary security occupations	115,923	106,224	-9,699	-8.4
Elementary sales occupations	69,734	66,323	-3,411	-4.9
Sales related occupations	94,568	92,379	-2,189	-2.3
Electrical trades	8,278	6,833	-1,445	-17.5

Source: Labour Force Survey, Q3 2001; 2007

Table 4: Twenty fastest growing female occupations, 2001-2007

Occupation	2001	2007	Change 01-07	% change
Childcare and related personal services	505,696	689,868	184,172	36.4
Functional managers	307,027	433,482	126,455	41.2
Teaching professionals	710,989	814,332	103,343	14.5
Health associate professionals	483,556	559,637	76,081	15.7
Healthcare and related personal services	726,945	783,317	56,372	7.8
Public service and other associated professions	217,614	272,664	55,050	25.3
Customer service occupations	220,265	271,847	51,582	23.4
Business and finance associated professionals	157,506	208,138	50,632	32.1
Social welfare associated professionals	127,319	174,459	47,140	37.0
Business and statistical professionals	90,870	137,029	46,159	50.8
Financial institutions and office managers	181,896	227,632	45,736	25.1
Health professionals	106,497	149,324	42,827	40.2
Administrative occupations: general	492,257	534,511	42,254	8.6
Public service professionals	80,697	111,239	30,542	37.8
Protective service occupations	42,634	72,069	29,435	69.0
Hairdressers and related occupations	153,236	181,125	27,889	18.2
Agricultural trades	24,011	46,369	22,358	93.1
Legal professionals	59,173	80,217	21,044	35.6
Quality and customer care managers	35,187	55,238	20,051	57.0
Managers in other service industries	181,625	199,997	18,372	10.1

Source: Labour Force Survey, Q3 2001; 2007

Appendix IV. Deciles transition matrix

		Wage decile in 2008/2009									
		1	2	3	4	5	6	7	8	9	10
Wage decile in 2001/2002 (%)	1	33	16	13	11	10	8	4	5	1	0
	2	23	29	14	8	10	5	5	4	3	1
	3	16	19	22	17	11	7	4	2	2	2
	4	8	13	18	22	16	10	9	3	1	1
	5	7	7	13	16	18	18	7	8	4	3
	6	5	5	10	12	11	20	21	9	5	3
	7	1	5	3	6	12	16	22	21	11	5
	8	4	2	4	3	4	11	18	23	25	7
	9	0	1	2	2	7	5	11	21	29	22
	10	1	1	0	1	2	2	1	8	23	60

Source: British Household Panel Survey

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