

# BULLETIN

## Winners and losers in the labour market

The 'quality' of jobs on offer, and access to these jobs, has a substantive and lifelong impact upon the choices and opportunities available for men and women. Therefore, it is important to understand how the make up of the workforce interacts with the 'quality' of jobs, and if there are labour market relationships therein that signify enduring quality. This Warwick University Institute for Employment Research (IER) *Bulletin* presents findings from research into the distribution of higher and lower quality jobs taking into account age, life stage, gender, ethnicity, qualifications, children and family formation.

### Introduction

The research report<sup>1</sup> summarised in this *Bulletin* was commissioned by the Equal Opportunities Commission (EOC) as one of a series of projects to support the EOC's investigation of transforming work.<sup>2</sup> The investigation, funded by the European Social Fund (ESF), is concerned with how work organisation and routeways into work can be transformed to improve productivity for businesses and the economy, and deliver better lifelong choices for women and men.

The IER project investigated the 'segregation' or concentration of different socio-economic groups amongst the employed workforce into occupations of different 'quality' as measured by their average levels of pay. The research highlights the propensity for women, especially those with dependent children, and certain ethnic groups, to be crowded into occupations nearer the bottom of the earnings distribution, while (predominantly white) men are overrepresented in high paying occupations.

According to the report's job 'quality' rankings, employment is found to be relatively more concentrated at the top and bottom ends of the ranking. Employment is most concentrated in the bottom two deciles of the job ranking with more than 28 percent of employment being in the

bottom 20 percent of jobs and more than 15 percent in the lowest decile of job quality.

### Methodology

The analysis used data from the UK Labour Force Survey (LFS). A merged dataset was constructed from the 18 quarterly LFSs from Spring 2001 to Summer 2005 (inclusive). The sample for analysis included all working age individuals (men aged 16-64 and women aged 16-59) in employment (whether an employee, self-employed or on government employment and training programmes). The resulting dataset included a total of 252,000 individuals.

Of particular relevance for this study of job quality is the information in the LFS on occupation (4-digit SOC2000) and earnings (nominal gross hourly pay). A 'job' is defined as a single 4-digit unit group using the Standard Occupational Classification (SOC2000). This is the most narrowly defined measure available and provides 353 distinct jobs. Following Acemoglu (1999) and Goos and Manning (2003), job 'quality' in this context is measured as the median pay of all those working in any particular occupational group, such that jobs can then be ranked from 'low' to 'high' according to their median pay. The median pay of all employees within a unit occupation group was calculated and then jobs were ranked from worst to best 'quality'. This job quality ranking ranges from the 'worst' job, rank 1 (SOC7124: Market and street traders and assistants), to the 'best' quality job, rank 353 (SOC1112: Directors and chief executives of major organisations).

<sup>1</sup> For the full report see Jones, P. and Dickerson, A. (2007) *Poor returns: winners and losers in the job market*, EOC Working Paper Series [http://www.eoc.org.uk/PDF/WP\\_52\\_Poor\\_returns.pdf](http://www.eoc.org.uk/PDF/WP_52_Poor_returns.pdf)

<sup>2</sup> EOC (2007) *Enter the timelords: Transforming work to meet the future*. Manchester: EOC. [http://www.eoc.org.uk/PDF/Transformation\\_timelords\\_report.pdf](http://www.eoc.org.uk/PDF/Transformation_timelords_report.pdf)

Since the definition of job ‘quality’ is necessarily subjective, a number of categories of high and low level ‘quality’ jobs were considered which use various cut-offs within the quality ranking. These categories include: higher and lower level jobs (defined as the top and bottom quartiles of all jobs); highest and lowest level jobs (defined as the top and bottom deciles of all jobs); and the top and bottom 10 jobs/occupations.

Using the above definitions of job quality, the analysis examined the proportions of men and women working in various job categories. The research considered the role of other factors which may influence the quality of job outcomes, including: highest qualification; age/lifecycle effects; dependent children; job status (part-time v. full-time); and ethnicity. Finally, the change in the distribution of job quality over the last 10 years was considered by comparing the distribution for the period 2001-2005 to that in the 1990s.

### Gender and the quality of jobs

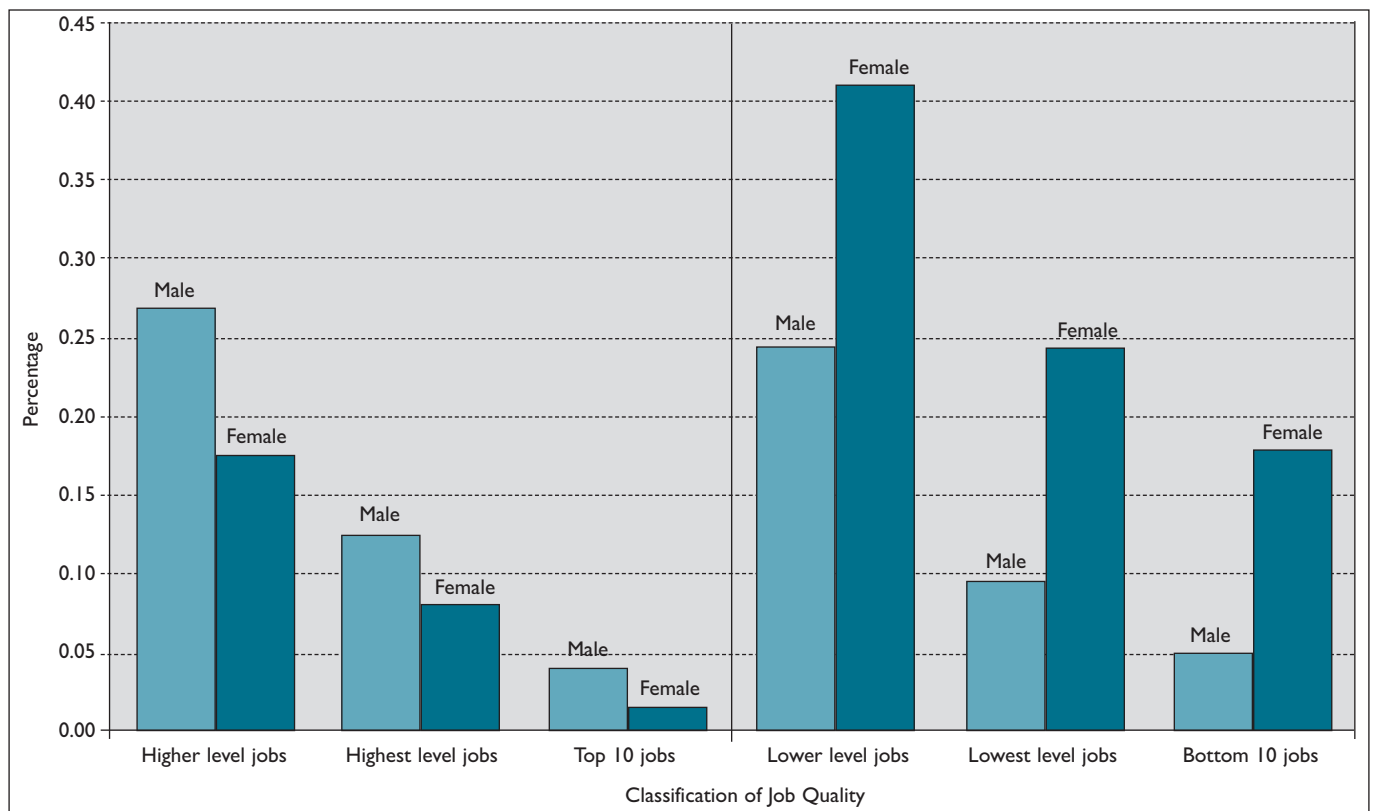
The proportions of men and women in high level and low level jobs were compared using the three categories of job quality outlined above. Figure 1 clearly illustrates the inequality between men and women in terms of their respective distributions of job quality. There is a consistent and pronounced ‘gender gap’ in terms of job quality. Men

are much more likely to be employed in a high level job as compared to women and are less likely to be employed in a low level job. These findings are robust to the different definitions of high and low level jobs. Taking the ratio of the proportion of men in higher level jobs (top quartile) to that of women, equates to men being approximately 50 percent ‘over-represented’ in high level jobs. There is even greater over-representation of men in the narrower categories of highest level and top 10 jobs.

Examining low quality jobs in a similar way to the gender comparisons for high level jobs, finds over-representation of women in these low quality occupations. Women are nearly 70 percent over-represented in the bottom quartile of jobs relative to men.

Amongst the top 10 jobs, the gender gap is even more apparent. All of the top 10 jobs are dominated by men with the exception of Ophthalmic opticians (SOC2000: 2214). In five of the top 10 jobs, more than 4 in 5 workers are male. In aggregate, three-quarters of the top 10 jobs are held by men. Within the bottom 10 jobs, the dominance of women is not as extreme as men’s dominance in the top 10 jobs. In 6 of the bottom 10 jobs, more than 70 percent of workers are female. In aggregate, almost three-quarters of the bottom 10 jobs are held by women.

**Figure 1: Proportions of men and women employed in high and low level jobs**



Source: Labour Force Survey

The research found very pronounced differences in the distribution of job quality by gender, but it is noted that there may be important compositional effects within these gender aggregated figures. The remainder of this *Bulletin* addresses the systematic influences on the distribution of job quality arising from a number of factors.

### Highest qualification and the quality of jobs

Qualification levels are defined according to the National Qualifications Framework (NQF) which distinguishes five levels of qualifications (plus no qualifications), which basically correspond to each level of National Vocational Qualification (NVQ) or equivalent. Individuals are identified according to the highest qualification they have achieved and the distribution of quality of jobs across each of these qualification groups is examined. The highest two levels (levels 4 and 5) have been combined due to the relatively low number of individuals in the top category.

For high level jobs, qualification level was found to be a very important factor in determining job quality for both men and women. A level 4+ qualification increases the probability of being in a high level job by a factor of 10 for men and by a factor of 25 for women. Those with no qualifications are very unlikely to be in a high level job.

Defining underachievement as those with qualifications of level 3 or above working in low level jobs, the level of underachievement is found to be quite substantial. 20 percent of men and 42 percent of women who are qualified to level 3, and 8 percent of men and 12 percent of women with level 4+, are working in low level jobs. These high percentages are contrary to what we would expect, based on the strong underlying relationship between qualifications and pay and thus job quality. It is estimated that around 2.2 million individuals were underachieving in Spring 2005, with more than 60 percent of these being women.

### Lifecycle effects

An important aspect of the distribution of job quality is age. In aggregate, the research found that the proportion of men and women in higher level jobs tends to increase with age and, conversely, the proportions in lower level jobs decrease with age, reflecting the normal processes of the accumulation of experience and job-specific skills over the lifecycle. This pattern of transition out of low level jobs and into high level jobs is particularly strong for individuals during their 20s.

However, after age 30, there is evidence of a significant divergence in the lifecycle trajectories for men and women. While men continue to move into high level jobs in increasing proportions, the lifecycle trajectory for women starts to decline.

### Family formation and the quality of jobs

The research also considered the impacts of the presence of children, age at family formation and other family circumstances on the distribution of the quality of jobs. Due to data limitations, the analysis of the effect of children is limited to women under 35.

The research found that the presence of dependent children has a significantly negative impact on women's job quality. Women are at least twice as likely to be in a low level job than a high level job when they have dependent children, while men with dependent children are more likely to be in a high level than low level job.

For men, the degree of 'disadvantage' associated with children narrows dramatically between 30 and 35 years, such that by age 35, the penalty for having children almost disappears. However, for women, a large gap in job quality remains between those with and those without dependent children.

The negative impact of having dependent children in terms of women's job quality is greater for those women who have children at a younger age. Women who started their families before the age of 25 have a less than 10 percent chance of being in a high level job and over 50 percent chance of being in a low level job. The likelihood of being in a low level job is twice as high for women starting families in their mid 20s as compared to those starting in their early 30s. The results imply that the period before age 30 is crucial in terms of achieving high level jobs. In this respect, for women in their 20s, the interruption that children have in women's working lives can be potentially very costly in terms of the quality of jobs in their later careers.

Having more than one child and/or being a single parent can also have additional impacts on job quality, especially for women. Having more than 1 child also reduces the probability of having a high level job but this probability is still twice as high for men as for women. The impact of being a lone parent on quality of job outcome varies considerably according to level of highest qualification, and particularly so for women.

For young men and women without children, the overall distribution of job quality is very similar. This suggests that the more general finding of a gender gap in job quality opening up after age 30 is more likely to be the result of family formation rather than the impact of any so-called 'glass ceiling'. However, there are still significant differences in the distribution of job quality at the very extremes of the distribution for these individuals – men are overrepresented in top 10 jobs and women are overrepresented in bottom 10 jobs.

### The effect of part-time employment

Part-time employment is very much female dominated. In the LFS data used in the study, 8 percent of all men are in

part-time employment while more than 40 percent of all women work part-time. Part-time employment also tends to be concentrated in lower paid occupations i.e. towards the bottom of the distribution of job quality.

The analysis revealed that part-time working is strongly associated with low level job outcomes, especially bottom 10 jobs. In terms of access to high level jobs, gender differences persist over both modes of employment: 28 percent of men in full-time employment are in higher level jobs as opposed to 23 percent of women; approximately 15 percent of men in part-time employment are in higher level jobs as compared to 10 percent of women. Although there are lower proportions of men than women working full-time in lower level jobs, there are similar proportions of women and men in part-time, low level jobs.

### **Ethnicity and the quality of jobs**

White men and women have much better job quality, both in terms of a greater likelihood of being in a high level job and a reduced probability of being in a low level job as compared with other ethnic groups. This is most noticeable, in particular, in the much higher proportions of ethnic minority groups in low level jobs. Amongst ethnic minority groups, Pakistanis and Bangladeshis have the worst quality of job outcomes. In contrast, it is found that most categories of Indian workers are likely to have a better quality of job outcome than their white counterparts.

### **The changing composition of high and low level jobs**

The final exercise in the research compared the distribution of quality of jobs in 2005 to that in 1995. For the earlier period considered, 10 quarterly LFS datasets from Autumn 1993 to Winter 1995 were pooled together in the same fashion as was done for the 2005 period. The occupational classification differs between the two periods. In the 1990s, occupations in the LFS were defined according to SOC1990 which is rather different from the SOC2000 definitions used for the 2005 period. 371 job categories were considered for 1995 and 353 jobs for 2005.

The comparative analysis indicated that the relative dominance of men in higher level jobs has reduced somewhat in the last ten years, especially in the top 10 jobs. This indicates a reduction in the gender gap in job quality. However, at the bottom end of the distribution, the position is unchanged from the situation in the mid-1990s, and women continue to be disproportionately employed in low level jobs.

The evidence also suggests that underachievement (as measured by the proportion of graduates working in lower level jobs and not in higher level jobs) has increased significantly since 1995.

### **Conclusions**

The main conclusion garnered from the research is that the gender gap in job quality is large and pervasive. Women continue to be disproportionately employed in low level jobs. This has changed little in the last decade, despite the relative increase in average educational qualifications for women over this period. For women with dependent children, job quality is particularly poor, in part because of the predominance of part-time employment for this group. Thus, despite their enhanced potential, women continue to dominate low level jobs because of the work they undertake while they bear prime responsibility for bringing up their children. Certain ethnic groups, especially older workers, also have very poor job quality.

In interpreting this analysis, it is important to remember that all findings are conditional on individuals being in employment. It is well known that there are important selection effects into employment that affect some groups much more than others – e.g. mothers with young children. This is recognised as an important issue but it is not one that is easily dealt with within the framework used in the analysis. For some groups – e.g. mothers with young children – a full treatment of such effects would reveal that they are even more disadvantaged than those that are in employment, since working mothers tend to be those who can gain most from labour market participation. As a consequence, the results reported can be regarded as a lowest estimate of the extent to which such groups are concentrated in low level jobs – those who do not participate would be disproportionately represented at this end of the distribution of job quality too if they were in employment.

### **References**

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- Goos, M. and Manning, A. (2003) *Lousy and Lovely Jobs: the Rising Polarization of Work in Britain*. Centre for Economic Performance (CEP) Discussion Papers 0604, London School of Economics.

For further information about this and other projects visit the IER website at [www.warwick.ac.uk/IER](http://www.warwick.ac.uk/IER) or e-mail: [ier@warwick.ac.uk](mailto:ier@warwick.ac.uk).