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Abstract

This paper investigates whether any significant differences in the job satisfaction of high- and low-paid workers exist in eleven European labour markets. Using data from six waves (1996-2001) of the ECHP, it is shown that low-paid employees are significantly less satisfied with their jobs compared to the high-paid in the periphery of Southern European countries, as opposed to those in the North. This evidence suggests that in the face of an increasing flexibility in labour markets, low-paid jobs in the EU are not inevitably of low quality, though in some countries low-wage workers have experienced the full brunt of both lower-paid and bad quality jobs. For these countries policies that centre on the quality of work are essential. Evidence indicates that the cross-country differences reflect the disparate manner with which the flexibility-security nexus has been confronted.

Keywords: job satisfaction, low pay, job quality, Europe, flexicurity.

JEL- Codes: J28, J42

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1. Introduction

Following the substantial process of structural change and reform that advanced Western economies experienced since the late 1970s, during which the distribution of earnings became more unequal (OECD, 1996), concerns have been raised over the growing proportion of workers falling into the category of the 'working poor'. Along with the increasing globalisation of economic activity, a growing importance of the services sector and the emergence of the knowledge society, these concerns have been exacerbated by the widespread deployment of new 'atypical' employment practices, such as part-time work, temporary contracts and low-paid jobs on non-standard working hours. While some have considered such relative changes as the ineluctable response of competitive markets to the diminishing demand for low-skilled workers, others are apprehensive of the ability of low-paid individuals to maintain decent living standards, particularly in the face of the deregulation of the institutional framework that traditionally supported their wages.

More recently, the European Commission has expressed concerns regarding the potential downsides of such non-standard forms of employment not only on the level of pay but also on the *quality* of jobs, such as the impact on job security, work-life balance, access to training and lifelong learning, health and safety at the workplace *inter alia*. In other words, it has been argued by the Commission that along with the declining relative (and, for some countries, real) position in the earnings distribution, low-paid workers have suffered from a double penalty as their jobs are also of inherently bad quality. This is believed to be the outcome of market and/or institutional failures, or of a belief by employers that quality improvements can impair their capacity for flexibility, both of which have allegedly fostered the development of a two-tier labour market within Europe. In this segmented market "the first tier is made up of jobs subject to decent pay, relative job security and career prospects, involving generally good working conditions. The second tier comprises not only the unemployed and discouraged workers, but also those employed in jobs of low quality which have low pay, precarious employment relationships or lack of further education and career development prospects" (European Commission, 2001a, p. 79).

Following this logic, this study attempts to detect whether any significant differences in job quality exist among high- and low-paid workers in eleven European countries, namely Denmark, Belgium, France, Ireland, Italy, Greece, Spain, Portugal, Austria, Finland and the UK. For if such differences do, in fact, exist, this constitutes (some) evidence in favour of the hypothesis that segmented labour markets have emerged in Europe. This paper therefore utilizes data from six waves (1996-2001) of the European Community Household Panel (ECHP), and after using the subjective job satisfaction evaluations of employees as a surrogate for the overall quality of work, it shows that low-paid employees are significantly less satisfied with their jobs compared to those who are high-paid in Greece, Spain, Portugal, Italy and Ireland. In contrast, there appears to be an insignificant difference in the satisfaction of high- and low-wage workers in the UK, France, Finland, Belgium, and Austria, while Denmark stands out as the only country where low-paid employees are found to be significantly happier.

Based on this evidence, one can argue that low-paid jobs in the European Union (EU) are not inevitably jobs of low quality. Instead, this study suggests that the EU itself has been divided into two-tiers. In the one group of countries (most notably those in the Mediterranean basin) low wage workers have suffered from the full brunt of both lower-paid and bad quality jobs, while in the other group (Northern Europe) market and/or institutional mechanisms have ensured a high degree of welfare amongst the lower-paid workforce. These results therefore highlight the importance of market, institutional and welfare regime differences across dissimilar EU economies in terms of determining labour market outcomes. They also emphasize the complexity for policymakers of employing a homogeneous regulatory framework that targets the removal of low-wage employment throughout Europe.

The structure of the paper is organized as follows. *Section 2* offers a brief literature review of the growing research that has taken place using subjective well-being data as a proxy for the overall quality of employment. In *Section 3* the data used in this study and summary statistics are presented. *Section 4* outlines the econometric methodology, while *Section 5* describes the empirical estimates of the relationship between low pay status and job satisfaction in eleven European countries. In *Section*

6 an attempt is made to account for the cross-country empirical differences found, by reference to the miscellaneous market and institutional features of the examined labour markets. The European labour markets, after all, offer a unique opportunity to study these issues, as they contain a large diversity of workplace arrangements, labour market institutions and welfare regime structures that nevertheless operate under a unified macroeconomic and monetary regime. *Section 7* concludes.

2. Literature Review

Ever since the Lisbon Summit of 2000, European Member States have considered the goal of improving '*quality in work*' as a complementary and mutually supportive objective to those of '*full employment*' and '*social cohesion*'. The need for policy-makers to focus on this objective was stirred by the evidence suggesting that there is a substantial risk of "vicious circles of low quality – low productivity employment, and unemployment, inactivity and social exclusion" (European Commission, 2002, p. 81). In addition, it was acknowledged that the full potential of job creation cannot be achieved if the jobs on offer are unattractive in terms of quality (Eurofound, 2001, p. 4). Placing greater emphasis on the quality of employment is also likely to result in faster employment growth and higher productivity (European Commission, 2003, p. 6-8). Quality promotion has hence been considered a cornerstone of the European social model in recent years.

However, since 'quality of work' is a multifaceted concept, any attempt to quantify the term is highly contentious. It has been suggested that there can be no one single measure or index of employment quality, and that one has to identify various 'dimensions' of job quality instead (European Commission , 2001b, p. 7).[1] In contrast, this paper follows the recent practice of an ever-increasing number of economists, who use subjective survey questions on individual job satisfaction as surrogates for the 'quality of work'. Much economic research has now started with the premise that *subjective well-being* (SWB) can serve as an empirical proxy for the theoretical concept of 'utility', thus overcoming the traditional convention of evaluating individual preferences by means of *revealed* behaviour in market situations. This initiative has followed the lead of many years of psychological research, which has illustrated that comparisons of different measures of SWB are

often mutually consistent. Plentiful economic studies have also shown that job satisfaction is a strong predictor of many aspects of human behaviour (e.g. quits, absenteeism, productivity; e.g. Freeman, 1978; Clegg, 1983).[2] Indeed, it is the belief of many economists that since overall subjective job satisfaction is the reflection of the worker's weighting in his/her mind of all of the job's aspects (such as pay, job security, the type of work, hours and times of work, working conditions, commuting etc.), "then the former should serve as a reasonable proxy for the overall quality of work as perceived by the individual worker" (Hamermesh, 2001).

A number of interesting and robust results regarding the effect of individual socio-economic characteristics on SWB and its domains have hence been reported. Concentrating mostly on the domain of job satisfaction, the literature has found that unemployed individuals report substantially lower levels of well-being than the employed and are permanently 'scarred' as a result of their jobless experience (Clark and Oswald, 1994; Theodossiou, 1998). It has also been argued that much of the wage effect on job satisfaction operates through relative wages (Clark and Oswald, 1996; Clark, 1999; Easterlin, 2001; Grund and Sliwka, 2005; Panos and Theodossiou, 2009).[3] Interesting demographic differences have emerged in that women consistently declare higher job satisfaction scores than men (Clark, 1997) and the age effect has been reported as being U-shaped (Blanchflower and Oswald, 2004). Finally, satisfaction levels have been found to be negatively correlated with both education (Clark and Oswald, 1996; Sloane and Williams, 1996) and union status (Drakopoulos and Theodossiou, 1997; Bryson *et al*., 2004), while associations with a number of work-related characteristics (e.g. performance-related pay, firm size, nature of job tasks) have also been reported (e.g. McCausland *et al*., 2005; Green and Heywood, 2008; Pouliakas and Theodossiou, 2009a).

More specific to the research topic of interest in this study, the theoretical framework underlying the rationale of low wage jobs also being of low quality is the *dual labour market hypothesis*. According to this theory, the lack of perfect competition between distinct labour markets fosters the development of 'good' and 'bad' jobs, whereby the former enjoy not only better working conditions than the latter, but also higher pay. In this case significant differences arise in the utility derived from work among otherwise identical individuals, with those in superior jobs enjoying greater job

satisfaction. Such differences cannot be sustained, however, in markets that are characterised by a perfect flow of information and lack of barriers to mobility. For in that case Adam Smith's (1776) paradigm of *compensating (or equalizing) wage differentials* would prevail, whereby employers of jobs with many disamenities would be expected to compensate for these in the long run with higher pay, all other things equal. Thus, according to the theory of compensating differences, in perfectly competitive labour markers those in lower-paid jobs should enjoy relatively good working conditions, while similar individuals in jobs with bad working conditions should be paid higher wages. Consequently, no significant differences in the utility of otherwise comparable individuals should be observed in the long run between those working in different tiers of the job market (i.e. low-paid vs. high-paid), unless the market is segmented.

In this respect, Leontaridi and Sloane (2001) and Leontaridi *et al*. (2005) showed with data from the British Household Panel Survey (BHPS) that low-paid workers in the UK enjoy greater job satisfaction than their higher-paid counterparts. Jones and Sloane (2007) also illustrated that the mean job satisfaction in the low-wage economy of Wales is not lower than in the rest of the UK. These studies led to the conclusion that there is no justification for the European Commission's assertion that low paid jobs are inherently jobs of low quality, at least as far as the British evidence is concerned. Pouliakas and Theodossiou (2005), though, cast doubt on the generality of these findings to other European labour markets, by showing that low-paid workers in Greece are markedly more dissatisfied than the higher-paid. Due to this discrepancy in findings, this paper seeks to revisit the issue by extending the analysis to nine additional European labour markets.[4]

3. Data and Descriptive Statistics

3.1   Data and Sample Criteria

The empirical analysis uses statistical data for Denmark, Belgium, France, Ireland, Italy, Greece, Spain, Portugal, Austria, Finland and the UK drawn from six waves of the European Community Household Panel (ECHP), covering the period 1996-2001. Designed centrally at Eurostat, but in close coordination with the Member States, the ECHP is a questionnaire database that contains

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information on more than 60,000 nationally representative households and 120,000 observations per year for all (pre-accession) EU countries.[5]   In constructing the ECHP emphasis was placed on developing comparable longitudinal statistics across Member States on income, labour, poverty and social exclusion, housing, health, as well as other social indicators concerning living conditions of private households and persons. More important for our purposes, it contains a considerable amount of information on the personal, human capital and employment characteristics of workers, as well as their stated satisfaction with their jobs. In particular, in the ECHP respondents are asked to rate their satisfaction levels with their main activity status (whether it is employment, unemployment, or inactivity).   The employed are also asked to state their utility level with respect to specific components of their jobs, such as earnings, job security, type of work, working hours, working times, working conditions/environment and distance to job/commuting. Each of these are given a number from one to six, where a value of one corresponds to 'not satisfied at all', six reflects 'full satisfaction', and the integers from two to five represent intermediate levels of utility. It is these self-reported responses that constitute the dependent variables in the econometric analysis below.

Due to the survey design and for the sake of data robustness the sample in this paper is restricted to individuals between 16 and 65 years of age who are working 15 hours a week or more. This includes those working in paid employment, as well as those working in paid apprenticeship or receiving job-related training, given that the provision of training constitutes a key component of the quality of jobs. For six years of the ECHP (1996-2001) this results in 14,892 observations (4,073 individuals) for Denmark, 13,942 (3,474) for Belgium, 30,361 (8,055) for France, 14,174 (4,481) for Ireland, 30,470 (8,341) for Italy, 14,795 (4,250) for Greece, 26,238 (8,157) for Spain, 26,649 (6,913) for Portugal, 17,200 (4,536) for Austria, 19,582 (5,731) for Finland, and 26,806 (6,983) for the UK.

3.2   Incidence of Low-Paid Employment and Job Satisfaction

Based on this sample, the first row of Table 1 identifies the fraction of employees who are low-paid in each of the eleven countries examined. These figures were computed by, firstly, deriving gross hourly earnings for each individual, using the available information on current gross monthly

earnings and the number of weekly hours of work in the main job. A conventional definition that classifies as low-paid those individuals whose earnings are less than two-thirds of the median gross hourly wage was then adopted.[6] On the basis of this definition, Table 1 illustrates that the overall incidence of low-paid employment varies widely between the eleven EU countries, with the highest percentages of low wage workers found in Ireland (21,18%), the UK (20.16%), Spain (17.70%) and Greece (17.51%), the lowest in Belgium (11,80%), Finland (10.78%), Italy (10,91%) and Denmark (9.96%), while Austria (14,84%), France (14.37%), and Portugal (13,36%) lie somewhere in the middle. These figures closely mirror the results that other authors have reported in the past (such as OECD, 1996; Asplund *et. al*, 1998; Marlier and Ponthieux, 2000; European Commission, 2004).

[INSERT TABLE 1 ABOUT HERE]

Having identified the overall incidence of low pay, Table 1 also depicts the composition of low wage employment with respect to various categories of jobs and individuals. Specifically, the table shows the *concentration indicator*, a measure of the prevalence of low-paid employment in each group relative to the overall incidence in the population. This indicator is useful for conducting cross-national comparisons, as a value greater than one suggests a higher than average risk of a specific group of workers being low-paid in any country. A particularly striking feature that emerges from this table is that the risk of low wage employment tends to be concentrated on the same types of workers and employment categories in all countries, despite the substantial differences in the overall incidence of low pay. For example, the likelihood is higher for women and younger workers, as well as for those with lower educational qualifications and absence of training opportunities in their jobs. This is not surprising, given that wages tend to increase with the level of human capital accumulation, acquired either through formal schooling, or in the form of on-the-job training and general work experience. Jobs with low wages are also primarily concentrated among part-time, single individuals possessing a non-supervisory role in the organization in which they are employed. In addition, the risk of low-paid employment is smaller in fairly 'stable' jobs, such as those with contracts of indefinite duration or in the public sector. The existence of a no pay/low pay cycle is apparent, since

those individuals who (re-) enter employment after being unemployed or inactive a year earlier are 2.5 to 3 times more likely to occupy a low wage job than those who were already employed. Lastly, the occupational breakdown suggests that while being in a non-manual occupation (such as sales) is not a guarantee of being in a relatively high-paid job, very few managerial, technical and professional workers receive low wages.

Moving on to an analysis of the raw job satisfaction data, Table 2 depicts the mean values of overall job satisfaction in the eleven countries, broken down by various categories of interest. Interestingly, one can see that low-paid workers in most of the countries examined are less satisfied with their jobs compared to those who enjoy higher wages. This is not the case in the UK, though, while Danish workers appear to receive equivalent happiness from their jobs regardless of their wage status. These trends are confirmed by Figure 1, which illustrates the evolution of the average job satisfaction of high- and low-paid workers in the eleven countries over time. The UK stands out as the only economy in which low-paid employees report larger job satisfaction scores than the high-paid over the six years of the sample. No difference exists in Denmark, which contrasts with the considerable divergence that is observed in the Southern Mediterranean countries, namely Greece, Spain, Italy and Portugal. Finally, in France and Finland the discrepancy in the utilities of high- and low-wage workers appears to have narrowed over the years, while in Austria, Belgium and Ireland it has remained almost constant.

[INSERT TABLE 2 ABOUT HERE]

[INSERT FIGURE 1 ABOUT HERE]

4. Econometric Methodology

The correlations that are outlined above may be spurious, as the influence of other factors that may confound the relationship between an individual's low pay status and his/her job satisfaction has not yet been controlled for. As shown in Table 2, one cannot be certain on the basis of the raw data alone that low-paid workers are undeniably more or less satisfied than their higher-paid counterparts. Since low-paid workers possess other characteristics that might have an effect on job satisfaction (e.g. they

are more likely to be single, low-skilled, on non-permanent contracts etc.), it might be these features that cause low-paid workers to appear as more or less satisfied, rather than the fact of being low-paid itself. Therefore, in order to uncover the true *ceteris paribus* effect of low pay on job satisfaction, a multivariate regression methodology is required to net out the effects of other variables that are simultaneously correlated with both low pay status and self-reported job satisfaction.

However, even after controlling for these factors, simple OLS (or ordered categorical) estimates of the effect of low pay are likely to be incorrect. The reason is that individuals are likely to be non-randomly allocated into the low- and high-pay sectors, due to the influence of various unobserved characteristics (*unobserved heterogeneity*). In reality, the observed distribution of high- and low-wage workers is expected to reflect the outcome of a matching process, with individuals of lower ability/intrinsic disposition/modest expectations etc. ending up on the lower rungs of the wage ladder, and those characterized by greater dexterity/drive/extrinsic motivation/high expectations etc. found in high-paying jobs. Failure to control for such unobserved individual traits in the analysis will therefore bias the least squares coefficient on a low pay variable.

It is for this reason that the random effects model of panel analysis has been employed to estimate all of the parameters in the model:

$$JS_{it} = \mathbf{X}_{it}\mathbf{\beta} + L_{it}\lambda + u_{it} \Leftrightarrow JS_{it} = \mathbf{X}_{it}\mathbf{\beta} + L_{it}\lambda + \varepsilon_i + \eta_{it} \tag{1}$$

where JS_{it}, job satisfaction of individual i at time period t ($i = 1,\ldots, N$; $t = 1,\ldots,6$), is the dependent variable, $\mathbf{X}$ is a vector of personal and labour market characteristics that affect JS, and L is the dummy variable of interest that distinguishes between high- and low-paid employees by taking the value 1 if low-paid and 0 otherwise. As is standard, the idiosyncratic disturbance term u_{it} is split into the time-invariant random individual effect, ε_i, and a pure random error term, η_{it}, with $E(\eta_{it}|\mathbf{X}, L) = 0$ and $E(\varepsilon_i, \eta_{it}) = 0$.

Of course, the random effects model may be criticized for neglecting the correlation that may exist between the individual random effect and one or more of the explanatory variables i.e. $E(\varepsilon_i \mid \mathbf{X}, L) \neq 0$. It is then well-known that if this correlation is ignored, the parameter estimates

will be biased (Wooldridge, 2002). In order to overcome this deficiency, a random effects model that applies the Mundlak correction (Mundlak, 1978) has therefore been employed in the empirical analysis of the paper. The Mundlak correction is implemented simply by parameterizing the relationship between the individual effect and the mean of the time-varying explanatory variables as $\varepsilon_i = \overline{\mathbf{X}}_i \varphi + \omega_i$, where $E(\omega_i \mid \mathbf{X}, L) = 0$. Since $\mathbf{X}_{it} = \overline{\mathbf{X}}_i + (\mathbf{X}_{it} - \overline{\mathbf{X}}_i) = \overline{\mathbf{X}}_i + \Delta\mathbf{X}_{it}$, equation (1) may thus be re-written as:

$$JS_{it} = (\overline{\mathbf{X}}_i + \Delta\mathbf{X}_{it})\boldsymbol{\beta} + L_{it}\lambda + \overline{\mathbf{X}}_i\varphi + v_i = \Delta\mathbf{X}_{it}\boldsymbol{\beta} + L_{it}\lambda + \overline{\mathbf{X}}_i(\boldsymbol{\beta} + \varphi) + v_i \qquad (2)$$

where $v_i = \omega_i + \eta_i$ is a composite error term. In this manner, both terms $\overline{\mathbf{X}}_i, \Delta\mathbf{X}_{it}$ are assumed to exert their own specific effects on the dependent variable, with the parameter estimate of $\overline{\mathbf{X}}_i$ representing a *level* or *long-run* effect and that of $\Delta\mathbf{X}_{it}$ a *transitory* or *short-run* effect.

Before describing the empirical results of the model, a final clarification needs to be made with respect to the nature of the dependent variable.[7] Given that subjective well-being answers are categorical variables i.e. ordered discrete variables, researchers conventionally apply ordered probit (OP) techniques. This practice reflects the fact that one does not know the respondents' *exact* feelings about their jobs, only the *interval* in which they belong. However, it has been (increasingly) suggested that via an appropriate utility transformation, researchers may be able to approximate the true evaluations of the respondents by means of a cardinal scale. For example, in one of the seminal articles in this field Freeman (1978) recommended that one could convert the ordinal job satisfaction variable by applying a standardized z-score transformation. Recently, other options have been explored that relax the assumption of interpersonal ordinal comparability, most notably the 'conditional mean' transform (Van Praag and Ferrer-i-Carbonell, 2004, Ch. 2). According to this method, the researcher may approximate the unknown 'true' value of job satisfaction by its conditional mean, using the standard formulas of the expected values of a doubly truncated normal variable (Maddala, 1983, p. 366). This approach, which Van Praag and Ferrer-i-Carbonell (2004) call *Probit Ordinary Least Squares* (POLS), yields approximately the same estimates as a traditional

ordered probit regression, apart from a multiplying factor that stems from a different normalization. Moreover, the significance of the estimates, e.g. as evaluated by t-values, has been shown to be practically the same for both methods (Ferrer-i-Carbonell and Fritjers, 2004; Van Praag and Ferrer-i-Carbonell, 2004, Ch. 2). It is therefore evident that there are significant advantages to using the cardinal measure of POLS instead of OP, since it simplifies the computational constraints of complicated econometric models (e.g. sample selection or panel data).[8] For these reasons, the POLS transformation has been adopted in the econometric analysis of this paper.

Finally, it should be noted that time effects have also been accounted for in the regressions through the inclusion of yearly dummy variables (Wooldridge, 2002, p. 128).

5. Empirical Results

Based on the methodology described above, this section describes the results of job satisfaction regressions that were run across eleven European economies. The results were generated by applying *exactly* the same model specification on all countries. This practice, which follows the lead of Westergaard-Nielsen *et al*. (2004), constitutes one of the first attempts to make a comparison of the same well-being model across various countries. In this manner, this study also contributes to the establishment of consensus regarding the impact of many key variables (such as gender, education, part-time work etc.) on happiness in the workplace.

From the estimation of the main job satisfaction equation (2) for each country, as is shown in Table 3, it is found that, other things equal, low-paid employees are significantly less satisfied with their jobs compared to those who are high-paid in Greece, Spain, Portugal, Ireland and Italy. In contrast, there appears to be an insignificant difference in the satisfaction of high- and low-wage workers in the United Kingdom, France, Belgium, Finland and Austria, while Denmark stands out as the only country where low-paid employees are found to be significantly happier. Insofar as job satisfaction is a reasonable proxy for the overall 'quality' of jobs, this evidence suggests that there is no universal justification for the assertion that low-paid jobs are inherently jobs of low quality. Nevertheless, the empirical findings draw attention to the fact that the EU itself has been divided into

two-tiers. In this segmented Europe there is one group of countries (most notably those in the Mediterranean basin) in which low wage workers have suffered from the full brunt of both low-paid and bad quality jobs, while in the other group market and/or institutional mechanisms have ensured that the lower-paid workforce enjoys a relatively high degree of well-being. Consequently, appropriate policies that would target the removal of 'low-paid/bad jobs' in the former cluster of countries would be warranted, though these same initiatives would not necessarily enhance the welfare of low-paid citizens in the latter group.

From the other explanatory variables it is observed further that 'transitory' changes in individuals' wages from the mean exert a significant positive effect on job satisfaction in all countries, which is consistent with the traditional income-leisure trade-off of microeconomic theory. However, the inclusion of the mean individual wage level over all periods (as a Mundlak correction term) suggests that while in some countries (UK, Denmark) 'permanent' additions to wages might actually reduce job satisfaction (presumably because they are accompanied by rising expectations), in others (Greece, Italy, France, Finland) long-run wage effects enhance the utility from work. Similarly, the significant negative effect of higher average working hours in Austria, Belgium, Finland and Ireland is in accordance with the assumed disutility of the neoclassical labour supply paradigm. On the contrary, the positive impact of 'transitory' deviations of working hours from the mean seems to reflect some sense of intrinsic enjoyment from work. Furthermore, the well-documented U-shaped relationship between job satisfaction and age is unearthed in all countries, though it is interesting that there is no common support for the so-called "paradox of the content female worker", as no significant differences in the satisfaction of male and female employees are found in Denmark, Spain and Portugal.

Considering now the variables that capture the 'stability' or 'precariousness' of the employment relationship, it can be seen from Table 3 that part-time workers are in general more satisfied with their jobs than full-timers in countries like the UK, Belgium and Denmark, where part-time employment now accounts for over 20% of total employment (European Commission, 2004). This is not the norm, though, in the low wage economies of Greece and Portugal. Instead, a full-time job

there is still considered to be the main avenue towards achieving income security and career progression. Furthermore, public sector workers are found to be significantly more satisfied than their private sector counterparts in eight of the eleven countries, with the UK being the notable exception. Finally, with regards to the type of contractual arrangement, it is evident that the instability and uncertainty that is associated with temporary and casual work leads to lower job satisfaction everywhere but in Belgium, Finland and Denmark. Overall, these results suggest that concerns about the negative effect of precarious forms of employment on the quality of work cannot be generalized, but need to be considered on a country-by-country basis. Indeed, the satisfaction premium enjoyed by part-time/temporary employees in some countries highlights the possibility that the ultimate effect of non-standard contracts on employee well-being depends on the extent to which they are done by choice rather than compulsion.

Significant differences in the subjective evaluation of jobs are also found among those who have different human capital characteristics. The well-known "education paradox" that has been reported for the UK, whereby higher-educated individuals are significantly less satisfied with their jobs compared to those with fewer qualifications, is more or less confirmed across most countries. Greece and Portugal escape the common trend once again, as the low educated report a *lower* level of job satisfaction than those with superior education. Furthermore, the provision of vocational training by employers as a means of upskilling and career development has a beneficial impact on the utility of most employees, but, most notably, is a source of disutility for the British. Good health, which Mincer (1974) considered a form of human capital, is also found to be one of the most significant determinants of job satisfaction in all countries.

[INSERT TABLE 3 ABOUT HERE]

6. Policy Implications

6.1   The importance of 'job flexibility and security (flexicurity)'

As mentioned at the beginning, the objective of improving the quality of work now constitutes one of the essential pillars of the European Employment Strategy. At the same time, the declining economic prospects of workers on the lower rungs of the income distribution in the 1980s raised concerns regarding the emergence of a two-tier labour market in Europe. Specifically, it was pointed out that there is a need to focus on individuals "at the lower end" of the labour market, because casual/low-paid labour not only acts "as the main conduit for repeat unemployment' (Stewart, 2007), but also suffers from little improvement in human capital and, consequently, enjoys fewer opportunities to move up the job ladder (OECD, 2003). As a consequence of market and/or institutional failures, a risk of segmentation therefore arises in the labour market not only between non-employed ('outsiders') and employed ('insiders'), but also between permanently employed 'insiders', who can look forward to a life of continuous employment and careers offering promotion and raising incomes, and precariously and informally employed 'outsiders' (Schmid and Schomann, 2003; European Commission, 2004, p. 160).

One of the main contributions of this paper is that by using a main indicator of the quality of work (European Commission, 2001b), it has empirically confirmed that a number of countries in Europe appear to be characterized by dual labour markets (Greece, Spain, Italy, Portugal, Ireland - herein called '*Southern*' for the sake of simplicity). In these economies those employees who are at the top of the wage distribution are also likely to be enjoying superior work conditions, whilst the lower-paid seem to be paying a double penalty, as they perceive their jobs as being of bad quality in addition to offering low pay. Consequently, in these 'Southern' countries appropriate policies that centre on the quality of jobs are warranted and should be of equal importance to those that focus on the level of pay that they provide.

Furthermore, the empirical findings draw attention to the fact that the EU itself appears to have been separated into two-tiers, the North and the South. Consequently, policies that are geared towards removing the incidence of low-paid jobs in the 'Southern' cluster of countries would not necessarily be effective in enhancing the welfare of low-paid citizens in the 'Northern' group.

Detecting the main factors underlying the split between the aforementioned two groups would require an in-depth macro-econometric analysis. Preliminary evidence suggests, though, that the difference in outcomes reflects the disparate manner with which these economies have confronted the flexibility-security ('flexicurity') nexus.[9] More precisely, it would appear to be the case that in those countries in which the low-paid concurrently suffer from inferior quality jobs, the greater flexibility of their labour markets has not been combined with security in terms of long-term employability of the workforce. It has been asserted that in today's competitive labour markets security is increasingly associated not with the fact of preserving a job for life, but rather with building and preserving people's ability to *remain and progress in the labour market*, while using the welfare system as an instrument of last resort (European Commission, 2004, p. 160). Following this logic, Figure 2 cross-tabulates the average job satisfaction scores of the low-paid in all of the countries in question in this study against the Mobility Transition (MT) index (ibid, p. 166), a measure of the degree of mobility between alternative economic statuses (non-employment; temporary work; permanent work; self employment; and education/training). Indeed, the marked degree of correlation observed in this Figure (Belgium and France being outliers) is suggestive of the fact that low-wage workers in the 'Southern' group are likely to be significantly dissatisfied with their jobs due to the belief that they do not have the prospect of a career that evolves over time, neither access to the resources needed to ensure lasting employability. By contrast, in the 'Northern' group low-paid jobs are likely to be perceived as stepping-stones for positions higher up the pay distribution. Consequently, for those economies where low-paid jobs are also of low quality, active policies and social protection systems need to be adapted to support mobility in the labour market and facilitate transitions between different contract statuses (job-to-job insurance).

[INSERT FIGURE 2 ABOUT HERE]

Along with the ease of transition between various labour market statuses, other aspects related to the long-term employability of the workforce include the shares of employees voluntarily and involuntarily working in non-standard contracts, the access to training and occupational/geographical

mobility, and the ease of reintegration into the labour market along with the reconciliation of work and private/family lives. Differences in these factors could also provide an explanation for the dissimilarity found between the two groups of economies. For instance, it can be observed from Table 3 that while part-time work is generally related to higher job satisfaction in the 'Northern' countries (with significant signs for the UK, Belgium and Denmark), it is associated with worker dissatisfaction in the 'Southern' ones (with significant signs for Greece, Portugal and Ireland). Moreover, although the negative effect of fixed-term contracts on perceived job quality is pervasive across the latter group of economies, this is not the case in Belgium, Finland and Denmark. Both of these results are therefore indicative of the fact that while workers in some 'Northern' countries are in all likelihood engaged in atypical contracts as a matter of choice, or as stepping-stones to superior jobs, those in the 'Southern' group are involuntarily occupying them and regard them as detrimental for their future career trajectories. This could also potentially explain why previously unemployed workers are more likely to be unhappy with their current jobs (compared to those who were employed a year earlier) in the 'Southern' countries, while those who are reintegrated into the job market in the 'Northern' group seem to be content with their state of affairs. Consequently, it is essential for the 'Southern' countries to reform overly restrictive elements in employment legislation that inhibit the diversity of contractual and working time arrangements, promote access to lifelong learning and ensure that low-paid jobs are underpinned by an infrastructure of decency and fairness with guaranteed workplace rights.

6.2   Case studies of representative countries

In order to provide further evidence for the arguments put forth in the previous section, the discussion is concluded by briefly examining the specific institutional and policy developments that have taken place in recent years in four of the eleven countries that are considered in this paper, namely Denmark, the UK, Greece and Spain (two from either group).

As shown in Table 3, Denmark stands out as the only country in which the low-paid are found to be significantly more satisfied with their jobs compared to the high-paid. This can be attributed to the

fact that Denmark traditionally had a combination of high flexibility in the labour market and an extremely high level of income protection. The central concept in Danish labour market policy is that of an 'inclusive labour market', whereby the gradual scaling down of the initially high insurance is compensated by an increased commitment of the public organisations and authorities to greatly increase the quality of activation, reintegration and training (Bredgaard, 2001, pp. 62-63; cited in Withlagen *et.al*., 2003, p. 10). Indeed, one of the most marked reforms that took place in Denmark in the mid-1990s involved a shift from training and education of non-actives to increasing the skills and employability of the working population, using a system of job rotation (ibid., p. 9). Due to these efforts, inactive or unemployed persons in this country rarely find themselves in the same position a year later.

The UK, on the other hand, has relied less on high unemployment insurance benefits and more on 'welfare to work' initiatives. The overall goal, however, remains the same, in the sense that they also aim at improving the 'employability' of the long-term unemployed and of those at the lower end of the labour market through advice, training, and job search facilities. In addition, there is evidence that only a minority of temporary workers now suffer from discrimination in terms of pay and other conditions (IRS, 1999). Instead, fixed-term contract workers have been found to be as likely as permanent employees to receive training and career development activities, and are not necessarily less skilled than the latter (Gallie *et. al*., 1998).

The specific structures and developments of the Greek and Spanish labour markets, in contrast, can provide an explanation for the emergence of 'good' and 'bad' jobs in these countries. In Greece the prevalence of self-employment (44%), the small size of firms and enterprises, the limited and to a large extent involuntary nature of part-time work[10], the absence of vocational training and the fact that about a third of paid employees are employed in the broadly defined public sector (Kanellopoulos *et al*, 2003) has resulted in a dualistic labour market. As Tsakloglou and Cholezas (2004) point out, "on the one hand, there are those who are either low-skilled self-employed or employed in small firms, receive low wages, work in unstable and precarious conditions, often for very long hours, and face a highly competitive environment. On the other hand, there are those who are working either in the

highly unionised public sector or in large private sector firms who receive relatively high wages and enjoy far better working conditions". The feelings of insecurity amongst the low-paid in Greece are also exacerbated by the shortage of labour legislation control mechanisms that permit discrimination and violation of workers' rights on behalf of employers (Ioakimoglou and Soumeli, 2002).

Spain also stands out, from a European perspective, as a country that has experienced a fast and intense shift from one of the most rigid employment protection systems to a highly flexible labour market. In an attempt to combat unemployment, which had risen to over 20 per cent of the active population in the mid-1980s, Spanish firms gained a free hand in recruiting employees on short-term contracts. This led to a marked increase in the distribution of fixed-term contracts to more than 30 percent of all employees, which is extraordinarily high compared to the European average. However, the shift towards more flexible employment relations in Spain was unusual in that it was directed at individuals outside the labour market trying to (re-) enter. At the same time, due to the prevailing strong legal obligations that protected permanent employees from dismissal, the job security of those who were already employed under permanent full-time contracts persisted (Toharia and Malo, 2000). This appears to have led to a considerable segmentation of the Spanish labour market.

7. Conclusions

Following concerns regarding the declining economic prospects of workers on the lower rungs of the income distribution, which has supposedly led to the emergence of a two-tier labour market in Europe, this study examined whether significant differences in job satisfaction exist among high and low-paid workers in eleven EU countries. Using data from six waves of the ECHP (1996-2001), evidence was presented that, other things equal, low-paid employees are significantly less satisfied with their jobs compared to those who are high-paid in the Southern periphery of European countries, while an insignificant difference is found in most countries of the North. Based on this evidence, one can therefore argue that low-paid jobs in the EU are not universally jobs of low quality. Nevertheless, the empirical findings draw attention to the fact that the EU itself has been divided into 'two-tiers', with low wage workers in 'Southern' countries experiencing the full brunt of both lower-paid and bad

quality jobs. For these countries policies that centre on the quality of jobs would be of equal importance to those that focus on the level of pay. A homogeneous policy targeting the removal of low wage employment through regulation, however, may not be appropriate, as it would not necessarily improve the welfare of all low-paid citizens in Europe.

Evidence suggests that these cross-country differences have arisen because Northern countries have pursued flexible employment policies that have been matched by active reintegration and training efforts focused on the low-skilled, which have enhanced their long-term employability as a consequence. The Southern European countries, instead, have directed almost all of their policy efforts in recent decades on deliberately seeking to reduce the unit labour costs of low-paid employees. In doing so, they have not taken the repercussions in terms of security and well-being of this already vulnerable group of the workforce into adequate consideration.

Acknowledgments

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TABLE 1
Concentration* of low-paid employment in eleven EU countries

	Greece	UK	Spain	France	Finland	Denmark	Belgium	Ireland	Portugal	Austria	Italy
Total Incidence	**17.51**	**20.16**	**17.70**	**14.37**	**10.78**	**9.96**	**11.80**	**21.18**	**13.36**	**14.84**	**10.91**
By sex											
Female	1.3	1.31	1.35	1.18	1.15	1.17	1.26	1.26	1.35	1.49	1.22
Male	0.81	0.7	0.8	0.84	0.85	0.84	0.78	0.77	0.73	0.64	0.86
By age											
16-25	2.77	2.12	2.36	3.04	3.53	4.6	3.05	1.97	1.73	2.65	2.81
26-35	0.99	0.65	0.94	0.94	0.86	0.69	1.10	0.73	0.78	0.63	1.17
36-45	0.52	0.69	0.57	0.65	0.6	0.53	0.75	0.67	0.73	0.47	0.49
46-55	0.45	0.82	0.57	0.6	0.63	0.33	0.58	0.65	0.76	0.50	0.51
56-65	0.86	1.08	0.69	0.83	0.64	0.46	0.62	0.69	1.17	0.31	0.71
By marital status											
Not married	1.79	1.3	1.53	1.47	1.6	1.73	1.45	1.51	1.43	1.29	1.68
Married	0.58	0.75	0.66	0.67	0.65	0.45	0.77	0.59	0.77	0.69	0.66
By working time status											
Part-time	1.42	2.01	1.55	2.05	2.47	1.63	1.53	1.84	2.34	1.25	1.06
Full-time	0.98	0.8	0.96	1.04	0.9	0.96	0.95	0.86	0.95	0.98	1.03
By sector											
Public	0.19	0.45	0.28	0.52	0.76	0.93	0.67	0.27	0.16	0.37	0.24
Private	1.49	1.18	1.21	1.23	1.17	1	1.33	1.33	1.27	1.24	1.36
By position in hierarchy											
Supervisory	0.11	0.3	0.21	0.35	0.34	0.23	0.35	0.25	0.12	0.28	0.21
Intermediate	0.21	0.7	0.37	0.51	0.42	0.37	0.68	0.45	0.18	0.35	0.40
Non-supervisory	1.09	1.31	1.16	1.21	1.18	0.75	1.15	1.16	1.08	0.89	1.10
By contract											
Permanent	0.62	0.93	0.48	0.74	0.66	0.43	0.83	0.71	0.75	0.63	0.63

Fixed/short term	1.46	1.58	1.6	2.68	2.12	1.94	1.81	1.15	1.28	1.45	2.03
Casual/no contract	2.5	2.59	3.69	na	3.87	2.4	3.59	2.58	2.84	2.75	4.80
Other arrangement	1.51	na	1.72	na	2.91	1.86	2.40	1.80	2.72	1.57	2.43
By training incidence											
No training/education	1.24	1.62	1.37	1.23	1.73	1.5	1.79	1.53	1.29	1.12	1.18
Training/education	0.5	0.77	0.61	0.72	0.63	0.26	0.63	0.53	0.30	0.51	0.42
By education											
Tertiary	0.34	0.67	0.42	0.51	0.36	0.19	0.42	0.36	0.07	0.30	0.22
2nd stage secondary	1.13	0.97	0.97	1	1.36	0.98	1.32	1.02	0.51	0.62	0.78
Below 2nd stage secondary	1.43	1.52	1.4	1.28	1.54	2.55	1.71	1.48	1.24	2.46	1.48
By health											
Very good	1.02	0.77	1.05	1	1.07	1.07	0.99	0.98	0.77	1.19	1.40
Good	0.9	1.02	0.96	1	0.88	0.83	0.96	1.01	0.95	0.84	0.91
Fair	1.15	1.15	1.03	0.95	1.03	1.08	1.15	1.11	1.03	0.88	0.90
Bad	1.59	1.32	1.2	1.4	1.23	1.63	1.14	1.10	1.58	0.78	0.93
By status last year											
Employed	0.82	0.84	0.78	0.83	0.68	0.73	0.90	0.76	0.90	0.79	0.86
Self-employed	1.13	1.07	1.22	2.24	1.97	1.11	1.65	1.26	1.22	0.88	1.06
Unemployed	2.67	2.28	2.46	3.26	3.68	2.47	3.82	1.97	2.23	2.17	3.05
Inactive	2.83	2.58	2.54	3.18	3.15	4.73	2.67	2.72	2.17	3.18	2.59
By industry											
Agriculture	2.6	1.79	2.75	2.08	2.3	2.1	2.87	2.95	3.26	2.27	3.49
Industry	1.09	0.7	0.8	0.85	0.87	0.74	1.04	0.82	0.88	0.93	1.07
Services	0.92	1.11	0.99	0.99	1.19	0.91	1.09	1.01	0.87	1.00	0.75
By occupation											
Legislators/managers	0.22	0.33	0.07	0.3	0.28	0.33	0.14	0.31	0.44	0.14	0.23
Professionals	0.2	0.17	0.13	0.29	0.19	0.15	0.29	0.23	0.09	0.34	0.21
Technicians/associate prof.	0.65	0.41	0.41	0.43	0.69	0.37	0.58	0.29	0.12	0.41	0.42
Clerks	0.65	0.93	0.62	0.84	0.75	1.02	0.84	0.66	0.32	0.72	0.40
Service and Sales	1.82	2.55	1.77	2.03	2.1	2.33	2.91	2.23	1.57	1.97	1.73

Skilled agriculture/fishery	2.32	1.84	2.34	2.31	2.07	3	3.91	1.67	3.42	2.22	3.17
Craft/trade	1.39	0.7	0.89	1.12	1.01	1.59	1.52	1.09	1.00	1.20	1.42
Plant/machine operators	0.75	1.16	0.81	1.1	1.13	0.66	1.33	0.80	0.50	0.51	0.75
Elementary	1.77	2.2	1.93	2.02	2.72	1.87	2.49	1.90	1.65	1.58	2.02

Notes: *Incidence of low-paid employment in each category divided by overall incidence of low-paid employment. A value greater than 1 indicates a higher than average risk of being low-paid, while a value less than 1 indicates a smaller probability.
Source: ECHP UDB (1996-2001)

TABLE 2
Mean job satisfaction scores by country

	Greece	UK	Spain	France	Finland	Denmark	Belgium	Italy	Portugal	Austria	Ireland
Low-paid	3.169	4.419	3.795	4.284	4.431	4.903	4.391	3.346	3.645	4.887	4.424
High-paid	4.027	4.309	4.326	4.438	4.594	4.909	4.484	4.105	4.079	4.966	4.643
By sex											
Female	3.882	4.436	4.237	4.419	4.597	4.893	4.476	4.047	3.999	4.989	4.650
Male	3.871	4.229	4.23	4.413	4.554	4.922	4.470	4.006	4.039	4.929	4.550
By age											
16-25	3.529	4.325	4.099	4.424	4.475	4.859	4.592	3.908	3.915	5.001	4.523
26-35	3.794	4.3	4.183	4.429	4.525	4.863	4.464	4.004	4.070	4.918	4.569
36-45	4.03	4.32	4.262	4.396	4.56	4.874	4.421	4.063	4.058	4.948	4.568
46-55	4.037	4.324	4.331	4.402	4.632	4.965	4.468	4.049	4.050	4.931	4.672
56-65	3.862	4.536	4.444	4.508	4.748	5.064	4.799	4.057	3.963	5.076	4.866
By marital status											
Not married	3.703	4.276	4.157	4.392	4.496	4.832	4.450	3.972	3.941	4.939	4.522
Married	3.968	4.376	4.28	4.433	4.623	4.967	4.486	4.048	4.065	4.967	4.656
By working time status											
Part-time	3.296	4.607	3.935	4.296	4.514	4.95	4.499	3.804	3.608	4.954	4.486
Full-time	3.903	4.278	4.254	4.43	4.582	4.905	4.470	4.040	4.039	4.954	4.619
By sector											
Public	4.381	4.364	4.556	4.575	4.645	4.936	4.504	4.307	4.321	5.082	4.723
Private	3.58	4.319	4.133	4.337	4.526	4.885	4.445	3.886	3.926	4.903	4.536
By contract											
Permanent	4.098	4.339	4.386	4.43	4.577	4.918	4.478	4.118	4.095	4.962	4.652
Fixed or short	3.495	4.217	3.996	4.309	4.593	4.924	4.465	3.684	3.882	4.686	4.544
Casual	2.916	4.189	3.566	na	4.427	4.68	4.500	2.936	3.272	4.122	4.276

Other	3.765	na	4.016	na	4.659	5.024	4.149	3.434	3.705	4.806	4.390
By education										
Tertiary	4.381	4.283	4.449	4.553	4.637	4.947	4.537	4.488	4.483	5.050	4.693
2nd stage second	3.877	4.321	4.176	4.385	4.505	4.883	4.419	4.146	4.137	4.957	4.585
Below 2nd stage	3.418	4.415	4.113	4.342	4.609	4.904	4.433	3.749	3.928	4.906	4.536

Source: ECHP UDB (1996-2001) data

FIGURE 1
Mean job satisfaction of high- and low-paid workers
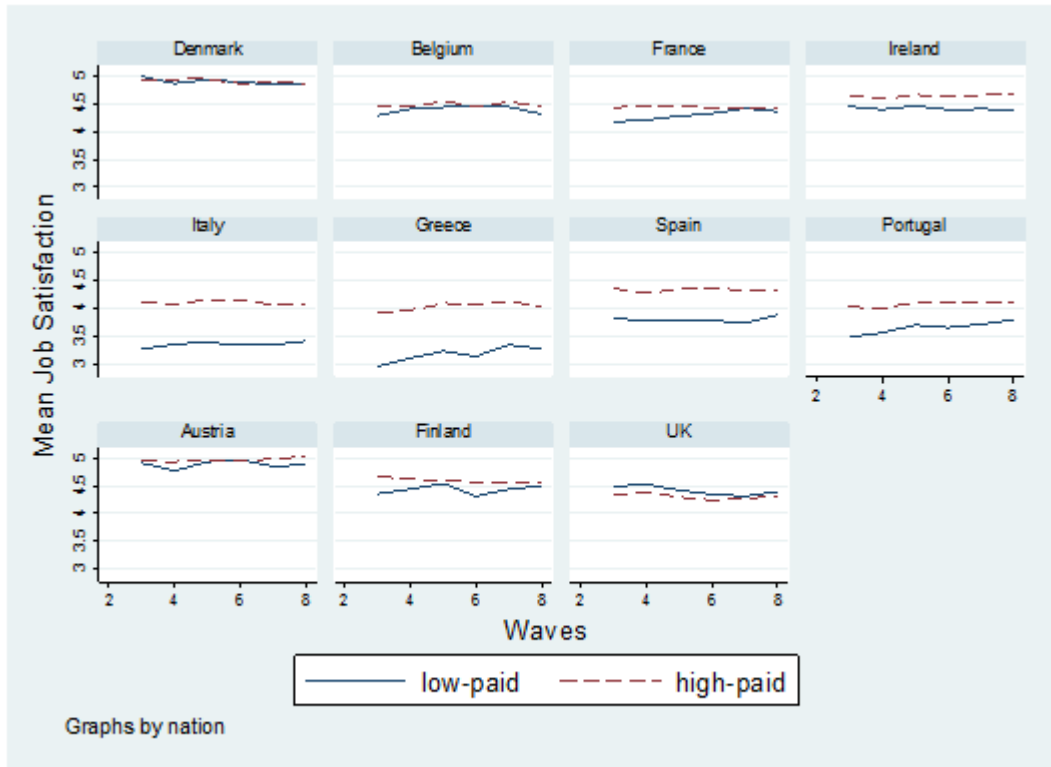**in eleven EU countries over time (1996-2001)**

Graphs by nation

TABLE 3
Random effects POLS estimates of overall job satisfaction in eleven EU countries

	UK		France		Austria		Belgium		Finland		Denmark	
	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.
Lowpay	0.002	(0.022)	0.002	(0.022)	-0.034	(0.032)	0.036	(0.041)	-0.019	(0.034)	0.128	(0.050)**
Personal												
Age	-0.022	(0.006)***	-0.022	(0.007)***	-0.016	(0.007)**	-0.044	(0.012)***	-0.015	(0.008)*	-0.027	(0.009)***
Agesq	0.0004	(0.0001)***	0.0002	(0.0001)***	0.0003	(0.0001)***	0.0006	(0.0001)***	0.0003	(0.0001)***	0.0004	(0.0001)***
Male	-0.129	(0.023)***	-0.067	(0.021)***	-0.072	(0.028)***	-0.078	(0.036)**	-0.102	(0.028)***	0.004	(0.033)
Married	0.014	(0.019)	0.046	(0.018)**	0.050	(0.023)**	0.007	(0.031)	0.067	(0.025)***	0.098	(0.027)***
Child < 12	0.039	(0.018)**	-0.019	(0.017)	0.013	(0.020)	-0.003	(0.026)	0.033	(0.023)	-0.035	(0.026)
Job-related												
Tenure	-0.066	(0.005)***	-0.030	(0.005)***	-0.013	(0.005)***	-0.024	(0.008)***	-0.047	(0.007)***	-0.026	(0.006)***
Tenuresq	0.0029	(0.0003)***	0.0011	(0.0002)***	0.0003	(0.0002)	0.0008	(0.0004)**	0.0021	(0.0004)***	0.0008	(0.0003)***
Ln(pay)	0.146	(0.029)***	0.068	(0.032)**	0.151	(0.039)***	0.197	(0.066)***	0.081	(0.049)*	0.341	(0.063)***
Mean wage	-0.129	(0.035)***	0.101	(0.038)***	-0.018	(0.046)	-0.007	(0.077)	0.187	(0.057)***	-0.263	(0.073)***
Mean hours	-0.034	(0.048)	0.092	(0.063)	-0.200	(0.076)***	-0.179	(0.103)*	0.083	(0.079)	-0.191	(0.108)*
Ln(hours)	-0.063	(0.042)	0.116	(0.053)**	0.129	(0.068)*	0.434	(0.096)***	0.155	(0.074)**	0.290	(0.091)***
Full-time	-0.061	(0.031)***	0.019	(0.034)	-0.002	(0.044)	-0.215	(0.057)***	-0.036	(0.053)	-0.088	(0.052)*
Private	0.067	(0.028)**	-0.090	(0.026)***	-0.081	(0.029)***	-0.056	(0.033)*	0.038	(0.028)	0.026	(0.041)
Two jobs	-0.038	(0.023)*	0.012	(0.048)	-0.025	(0.037)	-0.105	(0.046)**	0.004	(0.032)	0.061	(0.030)**
Duties												
Intermediate	-0.037	(0.024)	-0.074	(0.023)***	-0.108	(0.029)***	-0.057	(0.039)	-0.149	(0.032)***	-0.118	(0.036)***
Non-super	-0.063	(0.023)***	-0.157	(0.023)***	-0.151	(0.029)***	-0.171	(0.039)***	-0.235	(0.031)***	-0.070	(0.033)**
(ref: super)												
Contract												
Fixed/short	-0.113	(0.033)***	-0.091	(0.025)***	-0.199	(0.036)***	-0.034	(0.039)	-0.021	(0.029)	-0.010	(0.043)
Casual	-0.226	(0.042)***	na	na	-0.514	(0.129)***	-0.080	(0.153)	-0.084	(0.062)	-0.230	(0.048)***

	(1)		(2)		(3)		(4)		(5)		(6)	
Other	na	na	na	na	-0.044	(0.043)	-0.198	(0.085)**	-0.017	(0.106)	0.058	(0.111)
(ref. perm)												
Human K												
Tertiary	-0.087	(0.019)***	-0.125	(0.025)***	-0.135	(0.049)***	-0.081	(0.044)*	-0.301	(0.035)***	-0.101	(0.039)***
2nd stage	-0.075	(0.021)***	-0.065	(0.017)***	-0.015	(0.027)	-0.014	(0.034)	-0.169	(0.029)***	-0.072	(0.033)**
(ref. > 2nd)												
Training	-0.061	(0.021)***	0.082	(0.013)***	0.097	(0.021)***	0.096	(0.027)***	0.109	(0.022)***	0.002	(0.027)
Health												
Good	-0.122	(0.015)***	-0.180	(0.017)***	-0.245	(0.016)***	-0.206	(0.024)***	-0.174	(0.020)***	-0.143	(0.019)***
Fair	-0.216	(0.019)***	-0.438	(0.020)***	-0.435	(0.026)***	-0.408	(0.036)***	-0.323	(0.027)***	-0.337	(0.031)***
Bad/ V.Bad	-0.271	(0.028)***	-0.662	(0.038)***	-0.567	(0.058)***	-0.694	(0.082)***	-0.541	(0.059)***	-0.577	(0.074)***
(ref. v. good)												
Ex-status												
Self-employ	0.058	(0.054)	-0.005	(0.104)	-0.093	(0.133)	-0.231	(0.171)	0.233	(0.094)**	0.095	(0.164)
Unemployed	0.149	(0.047)***	0.075	(0.037)**	-0.047	(0.055)	0.059	(0.070)	0.060	(0.048)	-0.029	(0.074)
Inactive	0.040	(0.027)	0.014	(0.035)	-0.041	(0.032)	0.031	(0.063)	0.086	(0.034)**	0.117	(0.051)**
(ref. employed)												
cons	0.947	(0.207)***	-0.570	(0.273)**	0.159	(0.323)	-0.757	(0.537)	-1.297	(0.340)***	0.029	(0.428)
N	21721		22683		14893		7958.000		12499		9676	
No groups	6300		6655		3990		2977		4728		3295	
Wald χ^2 (df)	871.50***		1490.26***		979.09***		419.00***		760.77***		447.31***	
R-sq: within	0.025		0.027		0.024		0.021		0.024		0.028	
between	0.067		0.135		0.152		0.097		0.106		0.077	
overall	0.055		0.096		0.102		0.077		0.084		0.057	

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%;
All regressions include controls for industry, region, occupation and time;

Table 3 (continued)

	Greece		Spain		Italy		Portugal		Ireland	
	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.	Coef.	s.e.
Lowpay	-0.052	(0.026)**	-0.065	(0.022)***	-0.041	(0.024)*	-0.088	(0.021)***	-0.074	(0.036)**
Personal										
Age	-0.018	(0.007)***	-0.040	(0.005)***	-0.026	(0.006)***	-0.011	(0.005)**	-0.021	(0.008)**
Agesq	0.0002	(0.0001)*	0.0005	(0.0001)***	0.0003	(0.0001)***	0.0001	(0.0001)*	0.0004	(0.0001)***
Male	-0.088	(0.023)***	-0.058	(0.019)	-0.082	(0.020)***	0.014	(0.021)	-0.100	(0.034)***
Married	-0.022	(0.026)	-0.013	(0.019)	0.0001	(0.020)	0.033	(0.018)*	0.001	(0.035)
Child < 12	0.003	(0.021)	0.038	(0.017)**	-0.011	(0.016)	-0.031	(0.015)**	-0.003	(0.026)
Job-related										
Tenure	0.012	(0.006)**	-0.014	(0.005)***	-0.010	(0.004)**	-0.007	(0.004)	-0.023	(0.007)***
Tenuresq	0.0003	(0.0003)	0.0007	(0.0002)***	0.0004	(0.0002)*	0.0001	(0.0002)	0.0007	(0.0003)**
Ln(pay)	0.281	(0.042)***	0.311	(0.034)***	0.356	(0.037)***	0.314	(0.033)***	0.165	(0.050)***
Mean wage	0.215	(0.048)***	-0.060	(0.038)	0.231	(0.046)***	-0.004	(0.037)	-0.017	(0.055)
Mean hours	0.162	(0.083)*	-0.059	(0.060)	-0.016	(0.068)	0.080	(0.078)	-0.159	(0.085)*
Ln(hours)	0.330	(0.064)***	0.148	(0.053)***	0.337	(0.053)***	0.302	(0.059)***	0.006	(0.079)
Full-time	0.099	(0.044)**	0.043	(0.039)	-0.040	(0.031)	0.096	(0.045)**	0.093	(0.051)*
Private	-0.203	(0.028)***	-0.066	(0.025)***	-0.076	(0.022)***	-0.069	(0.023)***	-0.093	(0.040)**
Two jobs	0.114	(0.037)***	-0.055	(0.037)	0.174	(0.053)***	0.024	(0.029)	-0.177	(0.050)***
Duties										
Intermediate	-0.115	(0.041)***	-0.099	(0.027)***	-0.074	(0.024)***	-0.064	(0.039)*	-0.126	(0.039)***
Non-super	-0.188	(0.036)***	-0.176	(0.027)***	-0.236	(0.023)***	-0.132	(0.034)***	-0.071	(0.038)**
(ref: super)										
Contract										
Fixed/short	-0.252	(0.028)***	-0.117	(0.018)***	-0.088	(0.023)***	-0.138	(0.021)***	-0.145	(0.046)***
Casual	-0.316	(0.025)***	-0.211	(0.041)***	-0.240	(0.036)***	-0.420	(0.037)***	-0.215	(0.040)***
Other	0.090	(0.101)	-0.096	(0.039)**	-0.139	(0.041)***	-0.206	(0.027)***	-0.184	(0.057)***
(ref: perm)										

Human K										
Tertiary	0.091	(0.031)***	-0.156	(0.022)***	-0.099	(0.033)***	0.008	(0.036)	-0.116	(0.041)***
2nd stage	0.055	(0.023)**	-0.115	(0.018)***	-0.032	(0.015)*	0.007	(0.022)	-0.072	(0.029)***
(ref: > 2nd)										
Training	0.062	(0.017)***	0.126	(0.014)***	0.102	(0.014)***	0.092	(0.016)***	0.131	(0.025)***
Health										
Good	-0.118	(0.018)***	-0.211	(0.014)***	-0.167	(0.015)***	-0.135	(0.028)***	-0.168	(0.021)***
Fair	-0.054	(0.036)	-0.331	(0.021)***	-0.305	(0.018)***	-0.150	(0.030)***	-0.255	(0.039)***
Bad/ V.Bad	-0.146	(0.082)*	-0.508	(0.041)***	-0.360	(0.036)***	-0.293	(0.039)***	-0.513	(0.138)***
(ref. v. good)										
Ex-status										
Self-employ	-0.158	(0.076)**	0.145	(0.068)**	0.157	(0.072)**	-0.027	(0.059)	0.139	(0.126)
Unemployed	-0.086	(0.034)**	-0.066	(0.024)**	-0.132	(0.030)***	-0.160	(0.033)***	-0.083	(0.064)
Inactive	0.036	(0.036)	0.066	(0.031)**	-0.022	(0.036)	-0.016	(0.029)	0.070	(0.040)*
(ref. employed)										
cons	-4.974	(0.391)***	-1.327	(0.295)***	-1.827	(0.250)***	-3.122	(0.313)***	1.064	(0.330)***
N	13273		23725		24453		23027		8884	
No groups	3807		7536		7040		6193		3065	
Wald χ² (df)	3126.97***		2249.21***		2504.59***		2209.35***		429.95***	
R-sq: within	0.031		0.027		0.0214		0.026		0.023	
between	0.397		0.182		0.229		0.212		0.085	
overall	0.293		0.127		0.162		0.160		0.069	

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%;
All regressions include controls for industry, region, occupation and time;

FIGURE 2

Mean job satisfaction of low-paid workers vs. MT index by country
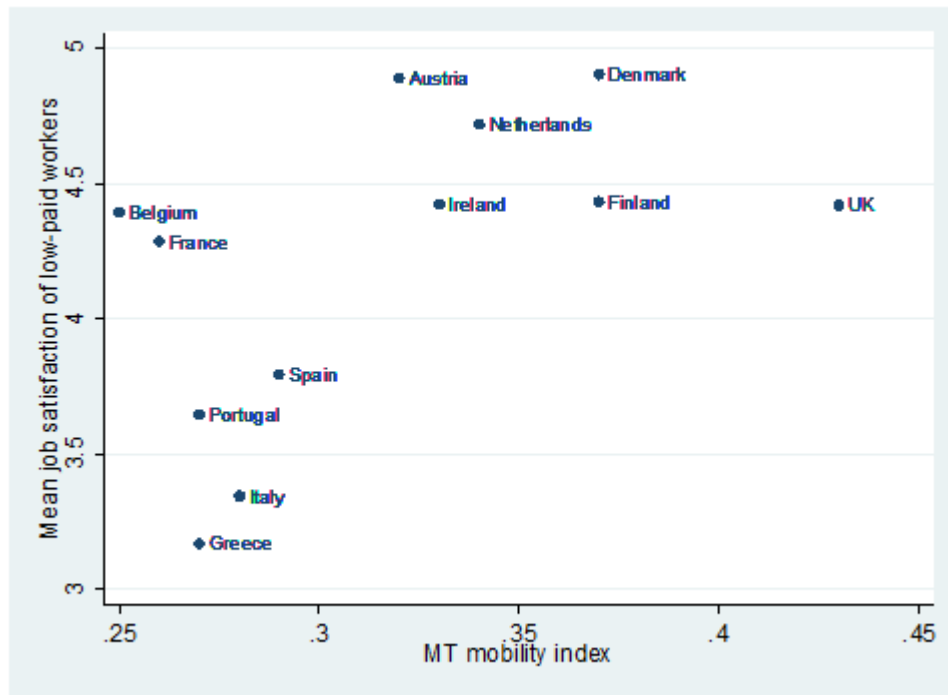
Source: Mean job satisfaction of low-paid workers in eleven EU countries: own calculations from ECHP UDB (1996-2001); MT mobility index: European Commission, 2004, p. 160.

Appendix: Description of variables

Variable	Description
Job Satisfaction scores (1 = 'not satisfied', 6 = 'fully satisfied')	
Overall Job Satisfaction	Respondent satisfaction rating with work or main activity
Job and Personal Characteristics	
Lowpay	*1, if individual is low-paid, defined as having wages less than 2/3rds of median current gross hourly wages, 0 otherwise*
Mean wage	Average current gross hourly wage in main job (including overtime) of respondents over the years of the survey
Ln(pay)	natural log of current gross hourly wage in main job (including overtime)
Age	age of respondent at date of interview
Agesq	age squared
Tenure	job tenure at date of interview
Married	1, if individual is married, 0 otherwise
Male	1, if gender is male, 0 otherwise
Mean hours	Average number of (log) total hours that the respondent worked per week (in main plus additional jobs, including paid overtime) over the years of the survey
Ln(Hours)	Natural log of total number of hours worked per week (in main plus additional jobs, including paid overtime)
Child < 12yrs	1, if household has 1 or more children under the age of 12, 0 otherwise
Full-time	1, if main job is full-time, 0 otherwise
Private	1, if current job is in the private sector, 0 otherwise
Two jobs	1, if respondent has more than one job, 0 otherwise
Human Capital	
Training	1, if individual had formal training or education that gave skills needed for present type of work, 0 otherwise
Below second stage secondary	1, if highest level of general or higher education completed is less than second stage of secondary education, 0 otherwise (omitted)
Second stage secondary	1, if highest level of general or higher education completed is second stage of secondary education, 0 otherwise
Third level	1, if highest level of general or higher education completed is recognised third level education, 0 otherwise
Duties	
Supervisory	1, if job status in current job is supervisory, 0 otherwise (omitted)
Intermediate	1, if job status in current job is intermediate, 0 otherwise
Non-supervisory	1, if job status in current job is non-supervisory, 0 otherwise
Contract	
Permanent	1, if employment contract in main job is permanent, 0 otherwise (omitted)
Fixed/short term	1, if employment contract in main job is fixed term or short-term, 0 otherwise
Casual work	1, if employment contract in main job is casual work with no contract, 0 otherwise
Other	1, if employment contract in main job is other arrangement, 0 otherwise
Health	
Health: very good	1, if health in general is very good, 0 otherwise (omitted)
Health: good	1, if health in general is good, 0 otherwise
Health: fair	1, if health in general is fair, 0 otherwise
Health: poor/very poor	1, if health in general is poor or very poor, 0 otherwise
Status last year	
Employed	1, if most frequent activity last year was employment, 0 otherwise (omitted)
Self-employed	1, if most frequent activity last year was self-employment, 0 otherwise
Unemployed	1, if most frequent activity last year was unemployment, 0 otherwise
Inactivity	1, if most frequent activity last year was inactivity, 0 otherwise

Other controls

Region	A set of dummies capturing the region in which the respondent's household is situated, varying according to the country
Industry	A set of 13 dummies for one-digit industry, taking the value 1 if the respondent's job belongs to the corresponding industry classification, 0 otherwise. The one-digit industries include: Agriculture; Mining; Manufacturing; Construction; Retail and Trade; Hotels and Restaurants; Transport and Communication; Financial Services; Real Estate; Public Administration; Education; Health, social services; other (omitted: Agriculture)
Occupation	A set of 9 dummies for one-digit occupation, taking the value 1 if the respondent's job belongs to the corresponding occupational classification, 0 otherwise. The one-digit occupations include: Legislators, Senior officials and managers; Professionals; Technicians and associate professionals; Clerks; Service and Shop and market sales workers; Skilled agricultural and fishery workers; Craft and related trades workers; Plant and machine operators and assemblers; Elementary occupations (omitted: Elementary occupations)
Year	A set of six dummies taking the value 1 for observations that belong to the corresponding wave of the ECHP, 0 otherwise. Years of sample include: 1996, 1997, 1998, 1999, 2000 and 2001.

Endnotes

[1] In recent years the EU Commission has identified and monitored 10 'indicators' of job quality in its Member States, covering two broad categories – the characteristics of the job itself, and the work and wider labour market context. They include: intrinsic job quality; skills, lifelong learning and career development; gender equality; health and safety at work; flexibility and security; inclusion and access to the labour market; work organization and work-life balance; social dialogue and worker involvement; diversity and non-discrimination; and overall work performance.

[2] For example, self-reported SWB has been found to be correlated with physiological measures such as the amount of smiling or frowning, changes in facial muscles (Kahneman *et al.*, 1999), or the evaluation of the individual's experience by a third party observer (Kahneman *et al.*, 1997). Van Praag (1991) has also shown that individuals belonging to the same language community have a very similar understanding of concepts such as welfare, well-being and happiness. Of course, it has been acknowledged that survey questions about satisfaction suffer from a number of weaknesses, such as the discrepancy between *remembered utility* and *experienced utility*, or the *adaptation phenomenon* (Easterlin, 2001; Pouliakas and Theodossiou, 2009b)

[3] Due to the limited availability of data in the ECHP, it has not been possible to incorporate relative wage effects in the econometric analysis below. It is believed, though, that this should not compromise the main conclusions of the analysis, since the focus is on the comparison of relative wages *between* high- and low-paid workers, rather than between these groups.

[4] Diaz-Serrano, and Cabral Vieira (2005) have engaged independently in a similar analysis to the one employed in this paper, reaching to a similar set of conclusions. However, their analysis failed to take explicit consideration of the issue of unobserved heterogeneity, so the findings of our paper are believed to offer stronger validation to their empirical estimates.

[5] In the first wave of the ECHP (1994) the sample comprised of 60,500 representative households and 130,000 interviewees aged 16 years or over, from 12 Member States. From 1995 onwards Austria was also included, and from 1996 and 1997 Finland and Sweden, respectively, joined the survey as well. Note that it was not possible to incorporate the Netherlands, Sweden, Germany and Luxembourg into the analysis due to absence of data on variables of interest for this study (e.g. job satisfaction, training, employment status last year etc.).

[6] Such a relative measure is commonly used in the literature, since an absolute metric poses difficult conceptual and methodological problems for making international comparisons of the incidence of low pay (OECD, 1996, p. 69).

[7] A more detailed account of the issues that are discussed here can be found in Westergaard-Nielsen *et al.* (2004), p. 276-282 and in Chapter 2 of Van-Praag and Ferrer-i-Carbonell (2004).

[8] Ultimately, given that the focus of interest is on the relative contribution of 'objective' characteristics on well-being i.e. on the *trade-off* ratio between two variables, so as to maintain well-being constant, the econometric method that is used becomes irrelevant. This is the case since the trade-off ratios for either OLS, OP and POLS estimates are the same, apart from statistical deviations, which tend to become small in large samples (Westergaard-Nielsen *et al.*, 2004, p. 280).

[9] *Flexicurity* can be defined as a policy strategy that attempts, *synchronically and in a deliberate way*, to enhance the flexibility of labour markets, the work organisation and labour relations, on the one hand, and to enhance the security, employment security and social security – notably for weak groups inside and outside the labour market - on the other hand (Wilthagen *et al.*, 2003).

[10] Based on 8 years of ECHP data (1994-2001), Pouliakas and Theodossiou (2005) find that among the 5.34 percent of employees who work in a part-time job in their sample, almost 47 percent declare that they do it because they were unable to find other work, while only 7.5 percent preferred this type of working arrangement. Furthermore, "part-time employment in Greece is directly interwoven with low pay, low-skilled jobs, limited prospects of career development, low social benefits and partial insurance coverage which also entails low pension rights" (Ioakimoglou and Soumeli, 2002).