The Inter-Related Dynamics of Dual Job Holding, Human Capital and Occupational Choice

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Abstract:

The inter-related dynamics of dual job-holding, human capital and occupational choice between primary and secondary jobs are investigated, using a panel sample (1991-2005) of UK employees from the British Household Panel Survey (BHPS). A sequential profile of the working lives of employees is examined, investigating, first, the determinants of multiple job-holding, second, the factors affecting the occupational choice of a secondary job, third, the relationship between multiple-job holding and job mobility and, lastly, the spillover effects of multiple job-holding on occupational mobility between primary jobs. The evidence indicates that dual job-holding may facilitate job transition, as it may act as a stepping-stone towards new primary jobs, particularly self-employment.

Keywords: Moonlighting, Occupational Choice, Human Capital, Mobility.

JEL Classification Codes: J22, J24, J62

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1. Introduction

Most available studies on the economics of dual- (or multiple-) job holding have focused exclusively on the determinants of the decision to moonlight (Perlman, 1966; Bell *et al.*, 1997; Conway and Kimmel, 1998; Böheim and Taylor, 2004; Dickey and Theodossiou, 2006; Renna and Oaxaca, 2006; Wu *et al.* 2008). However, the literature has been surprisingly silent with respect to the inter-related dynamics between the primary and secondary jobs of individuals, in particular the relation between the accumulated experience of past primary jobs, the decision to moonlight and the specific occupational choice of secondary employment. Furthermore, with the notable exception of Paxson and Sicherman (1996), no evidence to date exists on the association between the occupational choice of the secondary job, subsequent job mobility and occupational selection between alternative main jobs.

Examining closely the links between occupational experience, the incidence of moonlighting, job mobility and occupational choices of first and second jobs is nevertheless crucial for obtaining a fuller understanding of the process of labour market mobility. Given the important implications for individual income growth and career prospects, it is surprising that little attention has been paid to the important role of multiple job-holding as facilitator of the job transition process. Indeed, considering the rapid technological shifts and volatile labour markets of recent decades, it has often been suggested that modern employees have responded to rising rates of employee displacement and job insecurity by holding "bundles" of part-time or multiple jobs (Bell *et al.*, 1997; Farber, 1998; Neumark, 2000).

It is thus logical to expect that the accumulated work experience and skills obtained via a second job may have important spillover effects on, first, the probability of job change, and, second, the

likelihood of an occupational switch. As shown in the model of Shaw (1987), in a world of perfect information the probability of employer or occupational change increases with the transferability of skills. Furthermore, imperfect knowledge of the "match" between one's abilities and the job requirements is likely to facilitate a move to an unrelated occupation. An additional job, especially one that is distinct to the primary occupation, is therefore likely to enhance the prospect of labour market mobility, by affecting the available stock of occupation-specific skills and/or by alleviating the uncertainty regarding the worker-job match.

The aim of this study is to examine the links between multiple job-holding and occupational transition using a panel sample of male employees observed over 15 years (1991-2005) in the UK. The empirical strategy benefits from techniques that take into consideration the dynamic character of moonlighting and simultaneously allow for individual-specific effects in outcome equations of occupational choice, the latter defined over non-random sub-populations of moonlighters and job-movers. The evidence suggests that non-transferable occupation-specific experience and financial constraints are contributing factors towards the selection of similar occupations in the primary and secondary jobs by individuals who decide to moonlight. Nonetheless, those who do switch to a different occupation in their second job, relative to their first one, are more likely to be occupationally mobile, exhibiting a particular tendency to move into self-employment.

The structure of the remainder of the paper is as follows. *Section 2* provides a brief review of the available literature on the economics of multiple job-holding, drawing out any implications for job and occupational mobility. *Section* 3 describes the data, while *Section 4* outlines the empirical strategy and discusses the main empirical results. Finally, *Section 5* concludes.

2. Literature Review

The literature on the patterns of dual job-holding has identified four main potential motives that can lead to moonlighting activities (Böheim and Taylor, 2004): (a) According to the standard model employees may be *hours constrained*, *i.e.* willing to work more but not being offered the chance to do so in their primary occupation (Perlman, 1966). As the willingness to work more hours is related to the provision of low or insufficient wages in the first job, this is also often referred to as the *financial* motive. However, Robinson and Wadsworth (2007) provide evidence that the introduction of the minimum wage in the U.K had no significant impact on the decision to moonlight; (b) Employees that experience negative financial shocks may choose to find a second job in order to smooth their consumption, as an alternative to precautionary savings (Guariglia and Kim, 2004); (c) Individuals might derive different utilities from the first and the second job, *i.e.* job heterogeneity might provide a motivation to moonlight on its own (e.g. singing in a band during the evening). This is the so-called *job portfolio motive* (Renna and Oaxaca, 2006); (d) Employees faced with job insecurity may use additional jobs as an insurance device against the risk of a primary job loss and as a way of human capital diversification.

While a large part of the literature favours the hours constraints explanation, particularly for the developed world, little evidence has been presented on the view of dual job-holding as a hedging strategy. Bell *et al.* (1997) find little evidence of behaviour of this type in the U.K. They suggest that since moonlighting is more of a persistent/permanent phenomenon, this constitutes evidence in favour of the job heterogeneity explanation. In contrast, evidence from transition economies suggests that dual job-holding is more likely to be transitory and correlated with future job mobility. Guariglia & Kim (2006) find that moonlighting in Russia is transitory and is generally associated with career shifts, the latter often tending towards self-employment. This finding is in agreement with

the view of the secondary labour market or the informal sector acting as a potential effective incubator (e.g. by fostering the development of new human capital) for setting up new self-employed businesses (Levenson and Maloney, 1998; Demirgüc-Kunt *et al.*, 2009).

In an interesting unifying framework, Paxson and Sicherman (1996) introduce a stochastic dynamic model where the decisions to take a second job and change primary job are taken simultaneously. According to their view, the hours constraints explanation can lead to a dynamic process of moonlighting and job mobility. Workers who want to work more search for a portfolio of jobs that provide desirable bundles of characteristics. They may then use dual job-holding to learn about new occupations or to gain training. Moonlighting can thus facilitate the process of transition to a different occupation.

In the remainder of the paper, the relationship between multiple job-holding and the job and occupational mobility decisions of human beings is examined empirically in more detail.

3. The Data

This study uses fifteen waves of the British Household Panel Survey (BHPS, 1991-2005)[1] to examine the link between occupational experience, multiple job-holding, job mobility and occupational choice. The BHPS is a nationally representative household survey providing rich information on individual demographic, socioeconomic and work-related characteristics. Importantly, it identifies

[1] The BHPS data was made available through the ESRC Data Archive. The data was originally collected by the ESRC Research Centre on Micro-social Change, at the University of Essex. The original collectors of the data, the Data Archive and the affiliated institutions bear no responsibility for the analyses or interpretations presented here.

individuals who hold more than one job by asking "*Do you earn any money from (a second job) odd jobs or from work that you might do from time to time (apart from your main job)?*"

Figure 1 plots rates of dual job-holding by year vis-à-vis the official rates of unemployment, measured both in terms of benefit claimant rates per government region and local unemployment rates. The figure verifies that women are more likely to hold multiple jobs than men (by almost two percentage points). The male rates are between 7% and 10%, increasing in the first half of the panel and reaching a maximum in 1997. The trend declines after that year, reaching a figure close to 7% by 2005. Echoing the evidence on the procyclicality of moonlighting in the U.S (Partridge, 2002; Amuedo-Dorantes and Kimmel, 2008), the BHPS dual job-holding line also seems to parallel the unemployment line quite closely, with a rising trend until 1997 that is reversed thereafter.

[Insert Figure 1 about here]

The empirical analysis of the paper employs an unbalanced sample of *males* in paid employment, aged between 18 and 60 at the time of the interview. The reason for keeping male employees only is that women are more likely than men to undertake secondary job tasks for immediate financial reasons or due to family responsibilities (Amuedo-Dorantes and Kimmel, 2008). An additional criterion for inclusion in the analysis is the presence of males in the sample for at least three years, which is employed in order to enable the use of dynamic models. The average statistical life in the sample is 9.7 years. The sample is comprised of 5,590 individuals (37,772 observations). There are 3,211 spells of dual job-holding in the data, by 1,221 individuals. This is suggestive of the persistent nature of multiple job-holding in the U.K (Bell et al., 1997; Böheim and Taylor, 2004), as a large number of individuals are engaged in a second job for more than one year during the sample life.

Table 1 presents summary statistics for primary and secondary job characteristics in the sample. On average, 8.5% of the employed male sample is occupied in a second job. 52.5% of these dual job-holders are in paid employment in their second job, while the remainder is in self-employment. 61.9% of these observations hold a second job for two consecutive years (*serial moonlighter*). The average gross monthly salary in the primary occupation is £1,329 for an average of 39 hours of work per week. The average salary in the second job appears to be much lower, *i.e.* £210 for an average of 24 hours per week. Both the figures for earnings and hours of work in the second job entail very large standard deviations.

A first examination of the 1-digit Standard Occupational Classification (SOC) codes[2] in the primary and secondary jobs suggests that the fraction of people who are occupied as "Managers & administrators", "Clerical & secretarial occupations", and "Plant & machine operatives" in their secondary occupation is significantly lower compared to the respective groups in the primary occupation. There appears to be a higher incidence of lower-skilled occupations, such as "Associate professional & technical", "Personal & protective service", and "Other occupations", in the second job. It is thus of great interest to examine whether individuals are conducting the same or different types of jobs in their primary and secondary employment.

[Insert Table 1 about here]

Table 2 presents sample averages for individual and labour market characteristics. Panel (A) is for the pooled sample of both dual job-holders and individuals working in a single job. Panel (B) presents sample means for single job and dual job-holders, respectively, along with significance levels from a

[2] The robustness of the findings presented in the following sections was examined using more detailed distinctions, such as 2- and 3-digit level differences. The results are robust, and the choice of the 1-digit level distinction is made in order to facilitate the presentation of the output.

standard t-test of mean differences. Finally, Panel (C) introduces another distinction of interest, *i.e.* between individuals doing a similar occupation in their second job with their primary occupation, and those doing a different one. The distinction is implemented at the 1-digit SOC level.

[Insert Table 2 about here]

A standard inspection of differences in averages for primary job characteristics in *Table 2* indicates that dual job-holders are earning lower wages in their primary job. The difference is statistically significant both in terms of monthly and hourly earnings. Moreover, 13.2% of dual job-holders are found in the low-paid group, defined as those earning less than two thirds of the median earnings in the sample. The respective figure is 7.9% for those employed solely in one job. The latter are also more likely to have a higher household income and are less likely to be "relatively poor" (i.e. report equivalized household income less than two thirds of the sample median). Dual-job holders are less likely to be married, and to have an employed partner if married. They are younger on average, and have lower labour market experience, occupational-specific experience[3] and job tenure. They work less hours on average in their primary occupation, both in terms of normal weekly hours and paid overtime. However, they are more likely to *want to work* more hours in that job, which is indicative of hours constraints. Finally, a raw inspection of job transitions in the next year suggests that 4.1% of dual job-holders switch to self-employment as a primary job in the next year, compared to 2.1% of non-moonlighters. The difference is statistically significant at the 1% level. Similarly, 14.2% of moonlighters move to a new job with a new employer, compared to 11.5% of non-moonlighters,

[3] The creation of the occupational-specific experience variable in the BHPS stems from the detailed work of Zangelidis (2008a). Occupational experience measures the total amount of time an individual has spent in his current occupation from the time he/she first entered the job market. The variable is constructed on the 1-digit level of occupation classification and only employment spells where the respondent reported working for an employer (not self-employed), either part-time or full time, are taken into consideration. The spells of occupational experience do not necessarily have to be continuous. Missing values have been imputed based on a regression model of the length of accumulated occupational-specific experience (see Table A1 in the Appendix).

and are less likely to remain in the same position with the same employer. These patterns suggest that there is a relationship between dual job-holding and job mobility. It is important to notice, though, that the rates of transition to unemployment and inactivity do not differ significantly between dual job-holders and their single-job counterparts.

In terms of occupational diversification, the sample averages in *panel (C)* of *Table 2* suggest that those dual job-holders performing the same occupation in their primary and secondary job are more likely to be wealthier and to have higher job tenure and occupational experience. The groups more likely to diversify between the two jobs are those in unskilled occupations in their primary jobs. In the first instance, the differences with respect to future job transitions are found to be non-significant between individuals diversifying in their primary and secondary jobs.

4. Empirical Results and Discussion

The rest of the paper describes the empirical analysis of the relationships between multiple job-holding, occupational choice (between primary and secondary jobs) and job mobility. The analysis begins with the examination of the correlates of dual job-holding (section 4.1). The determinants of occupational diversification between primary and secondary jobs are then examined (section 4.2). In the next section (4.3), the link between dual job-holding and job mobility among alternative primary jobs is investigated. We distinguish between transitions into self-employment, new jobs, new position in the same job, and unemployment/inactivity, compared to a control group of individuals staying in the same job and position. Finally, the association between occupational change among different primary jobs, dual job-holding and occupational choice in the secondary job is explored (section 4.4).

4.1 *The profile of the dual job-holder*

In order to model the decision to hold a second job, a dynamic random effects probit estimator with Mundlak terms is estimated using the Wooldridge (2005) Conditional Maximum Likelihood (CML) methodology. In particular, a dynamic binary choice model for the probability of dual job-holding is specified as follows:

$$y_{it} = 1\{x_{it}'\beta + \gamma y_{it-1} + \eta_i + \varepsilon_{it} \geq 0\}, \quad i = 1, \ldots, N; t = 2, \ldots, T \qquad (1)$$

where y_{it} is an indicator variable for individual *i* being a dual job-holder at time period *t*, x_{it} is a vector of explanatory variables and $\varepsilon_{it} \sim N(0, \sigma_\varepsilon^2)$. The term y_{it-1} is also included to capture the effect of state dependence which typically characterizes the decision to moonlight in the U.K. (Bell *et al.*, 1997; Böheim and Taylor, 2004). The population of individuals *N* is assumed to be large relative to the available time periods *T*, so the asymptotic properties of the estimator are on *N* alone. It is also assumed that even though the ε_{it} are iid and $E(\varepsilon_{it}|x_{it}) = 0$, unobserved individual heterogeneity in the form of time-invariant fixed effects, η_i, introduces omitted variable bias as $E(\eta_i|x_{it}) \neq 0$. The term η_i also introduces serial correlation in the composite error term $v_{it} = \eta_i + \epsilon_{it}$ over time.

To overcome the omitted variables problem, Mundlak (1978) and Chamberlain (1984) suggest the estimation of a correlated random effects model. According to these authors, the correlation between η_i and x_{it} can be parameterized via a linear relationship as follows:

$$\eta_i = \bar{x}_i'\delta + \omega_i \qquad (2)$$

where $\omega_i \sim iid\ N(0, \sigma_\omega^2)$, $E(\omega_i | x_{it}, \varepsilon_{it}) = 0$ and $\bar{x}_i$ are the means over the sample period of all exogenous variables. The full model may then be rewritten as follows:

$$\mathrm{y}_{it} = 1\{\mathrm{x}_{it}'\beta + \gamma \mathrm{y}_{it-1} + \bar{x}_i'\delta + \omega_i + \varepsilon_{it} \geq 0\}, \quad i = 1, \ldots, \mathrm{N}; t = 2, \ldots, \mathrm{T} \qquad (3)$$

As argued by Chamberlain (1984), estimation of the likelihood function requires an assumption about the relationship between the initial observations, y_{i1}, and ω_i. Heckman (1981) proposed as a solution to this initial conditions problem the specification of a linearized reduced form equation for the initial period. However, this method requires a set of exogenous instruments for identification of the full observed sequence $(y_{i1}, \ldots, y_{it})$ given x_i. In contrast, Wooldridge's (2005) suggestion of modeling the density of $(y_{i2}, \ldots, y_{it})$ conditional on (y_{i1}, x_i) minimizes both the estimation complexity and the computational cost (Steward, 2007, p. 516). The Wooldridge estimator is based on specifying the relationship between ω_i and y_{i1} as $\omega_i = \omega_0 + \omega_1 y_{i1} + \psi_i$, so (3) can be finally expressed as:

$$\mathrm{y}_{it} = 1\{\mathrm{x}_{it}'\beta + \gamma \mathrm{y}_{it-1} + \bar{x}_i'\delta + \omega_0 + \omega_1 y_{i1} + \psi_i + \varepsilon_{it} \geq 0\}, \quad i = 1, \ldots, \mathrm{N}; t = 2, \ldots, \mathrm{T} \qquad (4)$$

In essence, the Wooldridge (2005) procedure entails the addition of the initial value, y_{i1}, and the means of the time-varying exogenous regressors into the main specification (1), which is then estimated as a model that follows the conventional random effects structure. It is important to notice that time fixed effects are dropped from the analysis in order to avoid perfect collinearity. Moreover, the estimated parameters δ and ω_1 are of direct interest, as they convey useful information about the relationship between the individual effects and the exogenous variables and the initial condition, respectively.

The results presented in *Table 3* are based on estimation of equation (4). A convenient way of interpreting the coefficients is to consider the estimated joint effect of the mean terms of the variables (Mundlak terms) and the level variables as the "permanent" effect of the regressors on the decision to hold a second job[4], while the coefficients on the level of the variables represent the response to a "transitory" change in these variables. Overall the results highlight some important patterns regarding the incidence of multiple job-holding, as described below.

First, the estimated model includes controls for both the multiple job-holding status of the individuals in the previous year as well as in the year they first appeared in the sample. As described above, the former is likely to capture the state dependence of dual job-holding, while the latter is included to control for the initial condition. Both variables are estimated to have a positive and statistically significant effect on the decision to hold a second job in the current period, suggesting that the incidence of multiple job-holding contains a permanent labour market element.

Evidence of the financial or hours-constraint motive is nonetheless also found, as it is clear that individuals' household income in the previous period (i.e. the period in which the decision to moonlight is likely to be made) exerts a negative effect on the probability of currently holding a second job. Furthermore, individuals who would prefer to work more hours in their present primary job are more likely to hold a second job compared to those who are content with their existing state of working hours. The opposite is also found for those who would like to work less hours.

The local unemployment rate is included in the vector of regressors in order to capture potential aggregate supply and demand regional labour market effects. In particular, the mean of the local

[4] The joint effect is calculated as a point estimate and standard error of the linear constraint that the summation of the level and the mean effect is equal to zero, for each of variable in the Mundlak terms separately.

unemployment rate is estimated to have a negative effect on the probability of holding a second job. This can be interpreted as a supply side reaction of the labour market, as regions with high *mean* unemployment are likely to have a low incidence of dual job-holding due to the limited availability of jobs. On the contrary, the positive effect of the current local unemployment *level* suggests that individuals respond to a negative demand shock, such as an increase in the unemployment rate, by obtaining a second job as an insurance shield against the increased labour market uncertainty.

In a similar manner to previous studies, a number of job-related characteristics of the primary job are also found to affect the probability of holding a second job. In particular, although the total number of contracted hours of work in the primary job does not affect the moonlighting decision, the number of paid overtime hours is found to have a negative and significant effect on multiple job-holding[5]. Individuals with promotion prospects in their primary job and those who receive annual increments in their salary are less likely to have a second job. The estimates also suggest differences between those employed in the private and public sector, with the former exhibiting a lower probability of secondary employment.

Three (theoretically and statistically) distinct measures of accumulated human capital in the job are included in the control set, namely total labour market experience, a constructed measure of occupation-specific experience (Zangelidis, 2008a) and employer-tenure. It was deemed necessary to include these measures in the specification in order to capture the potential human capital spillover effects that affect the decision of occupational change as described by Shaw (1987). The negative coefficients of the mean occupational experience and tenure variables suggest that employees with high levels of occupational expertise and overall seniority are less likely to have a second job, all

[5] Previous research finds that the overtime premium has an ambiguous effect on the probability of moonlighting (Renna, 2006).

other things equal. Interestingly, the level effect of tenure (transitory effect) implies that as individuals gain seniority in their current employment they are more likely to hold a second job. This finding may be potentially explained by the unwillingness of individuals to search for a second job in the initial or probationary period of employment.

Overall, no temporary effects of the remaining individual and household characteristics, such as marital status, number of children and employment status of the spouse, are found. One plausible explanation for this is that these characteristics exhibit low variation over time. Indeed their mean effects (not shown in *Table 3*) are statistically significant, suggesting that they exert a permanent effect on the decision to hold a second job. Finally, educational[6] and occupational differences appear to explain very little of the variation in the decision to hold an additional job.

[Insert Table 3 about here]

4.2 *Dual Job Holding and Occupational Choice*

Conditional on the determinants of dual job-holding shown in *Table 3*, the analysis now turns to the occupational choices of those who decide to have a second job. We focus explicitly on modeling and estimating the discrete individual decision whether to take up a secondary occupation that is different from the one in the primary job. Specific attention is paid to the importance of human capital spillovers in terms of affecting the occupational decisions of the respondents.

The model that is estimated may be expressed as follows:

$$y_{1it} = 1\{x_{it}'\theta + \alpha_i + u_{it} \geq 0\}, \quad i = 1, \ldots, N; t = 2, \ldots, T \qquad (5)$$

[6] An alternative model specification was also employed, where controls for education were not included in the regression to avoid potential collinearity with the occupational variables. No notable changes in effects were observed.

$$y_{2it} = 1\{y_{2it}^{*} = \mathrm{z}_{it}^{'}\beta + +\gamma y_{it-1} + \eta_i + \varepsilon_{it} \geq 0\} \qquad (6)$$

where equation (6), the selection rule that determines whether individuals engage in multiple job-holding, repeats equation (1) that was estimated in section 4.1. In equation (5), the main equation of interest, the dependent variable, y_{1it}, is a binary variable that takes the value of one for those who do an secondary occupation that is different from the one in their primary job (based on the 1-digit SOC), and zero otherwise. y_{1it} is assumed to depend on a vector of regressors, $\boldsymbol{x}$, which contains fewer yet common elements to the variables in $\boldsymbol{z}$ for identification purposes, and on a composite error term, $v_i = \alpha_i + u_i$, where α_i are unobserved individual-specific effects with $E(\alpha_i|x_{it}) \not\equiv 0$ and u_i is a random error term with $E(u_i|x_{it}) = 0$. Furthermore, y_{1it} is only observed if $y_{2it} = 1$, so a correction for potential sample selection bias is required in order to obtain consistent parameters that refer to the whole population (Heckman, 1979).

To estimate the model, a variant of the estimator proposed by Wooldridge (1995) and Semykina and Wooldridge (2005) is utilized. Specifically, it is initially assumed that η_i is a linear projection of the means of the regressors in the standard Mundlak (1978) manner, so that equation (6) is eventually expressed as:

$$\mathrm{y}_{2it} = 1\{\mathrm{z}_{it}^{'}\beta + \gamma \mathrm{y}_{it-1} + \bar{z}_i^{'}\delta + \omega_0 + \omega_1 y_{i1} + \psi_i + \varepsilon_{it} \geq 0\}, \;\; i = 1, \ldots, \mathrm{N}; t = 2, \ldots, \mathrm{T} \qquad (7)$$

Wooldridge postulates further that since the errors in the selection equation, $\varpi_{it} = \omega_0 + \psi_i + \varepsilon_{it}$, and u_{it} are independent of $\bar{z}_i$ and $\varpi_{it} \sim N(0, \sigma_\varrho^2)$ and $E(u_{it}|\bar{z}_i, \varpi_{it}) = \rho_t \varpi_{it}$, the conditional expectation of α_i can be expressed as a linear function of $\bar{z}_i$ and ϖ_{it} as follows:

$$E(\alpha_i|\bar{z}_i, \varpi_i) = \bar{z}_i\vartheta + (\phi_t + \rho_t)E(\varpi_{it}|\bar{z}_i, y_{2it} = 1) \qquad (8)$$

which results in the following model of the outcome equation:

$$y_{1it} = 1\{x_{it}'\theta + \bar{z}_i\vartheta + l_t\lambda(H_{it}) + u_{it} \geq 0\} \qquad (9)$$

where $l_t = (\phi_t + \rho_t)$, $H_{it} = (z_{it}'\beta + \gamma y_{it-1} + \bar{z}_i'\delta + \omega_1 y_{i1})$ and $\lambda(H_{it}) = \frac{\varphi(H_{it})}{\Phi(H_{it})}$ is the inverse Mill's ratio with $\varphi(.)$ denoting the standard normal density and $\Phi(.)$ is the standard cumulative normal distribution function.

For the estimation of equation (9), Wooldridge recommends that separate probit regressions are estimated on the selection equation (7) per each year *t* from which $\lambda(H_{it})$ is obtained (correcting the standard errors for robustness). In the second step, equation (9) may then be consistently estimated by a pooled OLS regression (with bootstrapped standard errors).[7]

The results from the second stage model, the occupational choice in the second job, are presented in *Table 4*. The primary estimator is a Linear Probability model (column 1), however for robustness purposes a Probit model and a Random Effects Probit model (with no selection correction) are estimated and presented in columns 2 and 3, respectively. The results remain fairly similar across the different estimation procedures, so discussion only of the Linear Probability model is provided below.

Individuals who hold a second job for financial reasons are likely to compare the available employment opportunities they have and choose the one with the highest potential in terms of earnings capacity, in accordance with the prediction of standard models of occupational choice (e.g.

[7] Other related procedures that have been suggested to tackle the above econometric problem include Kyriazidou (1997) and Dustmann and Rochina-Barrachina (2007). Applications of these methods can also be found in Jones and Labeaga (2003) and Jackle (2007).

Freeman, 1971; Boskin, 1974; Berger, 1988; Montmarquette *et al.,* 2002). In order to capture this decision, a new variable in the dataset has thus been created that compares the wages that the individual is likely to receive from his current occupation with the predicted earnings from the best alternative occupation. The latter is defined as the occupation that individuals are mostly likely to do as part of their primary employment, besides the one that they are currently employed in (see section *A2* in the *Appendix* for details). As expected, the estimated coefficient of this variable in the estimation of equation (9) is negative and significant, suggesting that individuals who have higher earnings possibilities in their current occupation, relative to other viable options, are less likely to choose a different occupation in their second job.

Examining the effect of the remaining covariates closer, the importance of accumulated occupational experience in the wage determination process has been highlighted in a number of recent studies (Zangelidis, 2008a and 2008b; Kambourov and Manovskii, 2009; Williams, 2009). According to these, an 'occupation' appears to be an important dimension across which skills are transferable, with individuals with longer occupational experience enjoying higher wages. Moreover, as shown by Shaw (1987), the degree of transferability of skills across occupations is an important determinant of occupational choice, with a lower degree of transferability being associated with a greater probability of individuals selecting similar jobs. A measure of occupational-specific experience, as used in Zangelidis (2008a), has thus been included in the regression as a control variable. The findings reflect *a priori* expectations, as individuals with lengthier occupational experience in their primary job are less likely to choose a different occupation in their second job. Interestingly, accumulated labour market experience is found to have the opposite, positive, effect. One plausible explanation for the latter result may be that individuals with lengthier overall working experience have better knowledge of the labour market and better information regarding

employment opportunities. Furthermore, the length of total labour market experience may be regarded as a proxy of the level of accumulated general, highly transferable, skills.

Household characteristics are important determinants of individuals' occupational choice in the second job. In particular, married or cohabitating individuals are estimated to be less likely to do a different occupation in their second job, compared to that in their primary one. This finding may be interpreted as evidence that individuals with increased commitments are more likely to choose as their second job an occupation that that they are familiar with, as a means of increasing their earnings capacity. Accordingly, it is found that individuals whose spouse is employed are more likely to undertake a different occupation when holding a second job. These individuals may possibly engage in a second job for reasons that are unrelated to the financial motive.

Workplace characteristics of the primary job are also found to affect the occupational choice in the second job. In particular, individuals employed in the private sector are less likely to do a different occupation when engaging in dual job-holding, while the opposite holds for those who have promotion prospects in their primary jobs. The latter may be interpreted as an indication that these individuals moonlight for non-pecuniary motives. Finally, individuals with a medium level of education, compared to those with a University degree, are found to be more likely to do a secondary occupation different to the one in their primary job. The opposite is found to be true for those with low or no education at all. In addition, the majority of the individuals employed in occupations other than Managers and Administrators are less likely to choose a different occupation in their second job.[8]

[8] The last two findings may appear to be contradictory, since it is people with University degree that on average have managerial and administrative positions. One plausible way of interpreting these findings is through the different motives for multiple job-holding. In particular, individuals with a University degree may do the same occupation when

The above findings imply that individuals facing increased family commitments or financial constraints are more likely to select a similar occupation in the second job as in their primary one, presumably to exploit the higher earnings opportunities that their non-transferable occupational experience secures. The contrary holds for those individuals who enjoy a relative sense of financial security, who can therefore afford to select different occupational streams in their secondary employment that satisfy their intrinsic preferences.

[Insert Table 4 about here]

4.3 *Dual Job-Holding and Job Mobility*

The choice of primary and secondary job is likely to significantly affect the career evolution of individuals via the accumulation of transferable human capital, knowledge and occupation-specific skills that it entails. The focus of interest therefore now turns to examining the potential links between the primary and secondary occupational choices of individuals and their subsequent labour market mobility decisions in the next period (t+1).

A similar framework to the one used in section 4.2 is employed:

$$\mathrm{y}_{1it} = 1\{\mathrm{x}_{it}^{'}\theta + \alpha_i + u_{it} \geq 0\}, \;\; i = 1, \ldots, \mathrm{N}; t = 2, \ldots, \mathrm{T} \qquad (10)$$

$$y_{2it} = 1\{y_{2it}^{*} = \mathrm{z}_{it}^{'}\beta + \eta_i + \varepsilon_{it} \geq 0\} \qquad (11)$$

where y_{1it} is now a binary variable taking the value of one if individuals in a new primary job at time t+1 are doing an occupation different from their primary job in the previous period (t). This variable

holding a second job in order to exploit the skills gained as part of their degree. Whereas people in already high-paying positions may have a second job for heterogeneous, non-financial, reasons, inducing them to take up a different occupation than their current one as a result.

is only observed for those individuals who decided to change their original labour market situation i.e. $y_{2it} = 1$.

The Wooldridge (1995) and Semykina and Wooldridge (2005) methodology is utilized here once again, so that the estimation of equations (10) and (11) proceeds as follows:

$$y_{1it} = 1\{x_{it}'\theta + \bar{z}_i\vartheta + l_t\lambda(H_{it}) + u_{it} \geq 0\} \quad (12)$$

$$y_{2it} = 1\{z_{it}'\beta + \bar{z}_i'\delta + \psi_i + \varepsilon_{it} \geq 0\} \quad (13)$$

Focusing on the selection equation (13) first, particular interest is paid to the following five possible labour market outcomes concerning the primary employment: (1) staying in the same job; (2) becoming self-employed; (3) getting a new salary job; (4) getting a new position with the current employer; and (5) becoming unemployed or inactive. The way this issue is explored is by running four different regression models as in equation (13), where the dependent variable each time takes the value of one for each of the outcomes (2),(3) and (4), respectively, and the value of zero if the individual remains in the same job. Therefore, the comparison group across all four regression models is always the same, namely those who remain in the same job.

The estimates from the four labour market mobility models are presented in *Table 5*, Panel (A). The estimation methodology is the random effects probit model. Column (A1) refers to the case where individuals become self-employed, compared to staying in the same job. Similarly, columns (A2)-(A4) refer to individuals getting a new job, getting a new post with the same employer or becoming unemployed or inactive, respectively, always compared to those who stay within the same primary job.

In order to assess the importance of multiple job-holding in period t on the four alternative turnover patterns at period t+1, dual job-holding enters the model in three alternative ways. In the first specification (I) it appears as a binary variable (*Moonlighter*), where a simple control for multiple job-holding in period t is included. In the second specification (II), two binary variables are included that capture simultaneously the incidence of multiple job-holding and the occupational discrepancy between primary and secondary jobs (i.e. *Different occupation in 2nd job relative to the primary one in period t*, and *Similar occupation between the primary and 2nd job in period t)*. Finally, in the third specification (III), two binary variables that reflect the persistency of dual job-holding activity are considered (i.e. *Serial Moonlighter* and *Single Moonlighter*)[9]. The omitted category in the two latter specifications is those who do not have a second job at period t.

In this manner it is found that individuals who have a second job are more likely to become self-employed in the next period than to remain in the same job (column A1). The same is also true for getting a new job (column A2). In addition, multiple job holding is found to decrease the probability of becoming unemployed or inactive, compared to remaining in the same job (column A4). The estimates from the second specification paint a similar picture, with those who have a second job in period t (doing either the same or different occupation compared to their primary one) being more likely to becoming self-employed or getting a new job in the next period. The results are also fairly similar when employing the third specification. Both serial and single moonlighters are found to be more likely to enter self-employment compared to staying in the same salary job. Single moonlighters are also estimated to have higher probability of changing salary jobs, while the same is not true for serial moonlighters. What becomes apparent here is that the incidence of multiple job-

[9] The *serial moonlighter* is defined as an individual holding a 2nd job for 2 consecutive years, as opposed to the *single moonlighter* who exhibits a single moonlighting spell.

holding itself is what affects job mobility in the next period, rather than the occupational choices individuals make in their secondary employment, or the persistency of dual job-holding activity.

The results on the remaining regressors are almost identical regardless of the chosen specification, so for that reason, and for economy of space, the estimates only from specification (I) are presented in *Table 5*[10]. Some interesting results emerge from the analysis. Local unemployment is found only to reduce the probability of moving to a new job, while it has no significant impact on all other job mobility outcomes. Furthermore, individuals with lengthier accumulated occupational experience and seniority are less likely to exhibit any kind of job mobility. Interestingly, job mobility appears to be a response to the hours-constraints individual face in their primary job. Also, people in the private sector are more likely to become self-employed, get a new job or become unemployed or inactive relative to their public sector counterparts. Furthermore, individuals with permanent contracts in their current primary jobs and those who receive annual pay increments are less likely to exhibit any kind of job mobility. Finally, the availability of promotion prospects in the primary job increases the probability of internal job mobility, and reduces the probability of all other job mobility outcomes.

[Insert Table 5 about here]

4.4 *Dual Job-Holding and Occupational Choice in the New Job*

As the estimates in *Table 5* (Panel A) highlight the importance of dual job-holding for job mobility, the issue is now further explored by examining the occupational choices individuals make when changing jobs (either by becoming self-employed, getting a new job, or obtaining a new position

[10] All estimates can be made available from the authors upon request.

with their current employer). As before, particular attention is paid on the effect of holding two jobs and the occupational choice in the second job.

For the purpose of the analysis, the occupational choice model in equation (12) is estimated separately for those who become self-employed, get a new job or a new position at period t+1. In order to control for possible selection bias in these employment states, the framework used in section 4.2 is employed. This involves a sample selection model, where the cross-sectional versions of the mobility regressions in columns A1-A4 serve as the first stage regressions (available upon request)[11]. Then, in the second stage, linear probability models are estimated, incorporating the inverse Mills ratios obtained in the 1st stage. The dependent variable takes the value 1 if the individuals works in a different occupation in (a) self-employment (*column B1*); (b) new job with a new employer (*column B2*); and (c) new position with the same employer (*column B3*). The estimates are presented in *Table 5* (Panel B).

Similar to above, three alternative specifications are used in order to capture the effect of multiple job-holding on occupational transitions between primary employments. What becomes evident is that the occupational choices that individuals make as dual job-holders (specification II) can play an important role in terms of affecting their selected occupations in their new employment. In particular, individuals who carry out the *same occupation* in the primary and secondary job at period t are less likely to perform a different occupation in the new primary job at period t+1. The opposite is true for those who do *different occupations* in their primary and secondary jobs at the previous period t. These findings suggest that there are human capital spill-over effects between primary and secondary employment. Individuals may use dual job-holding as a conduit for obtaining new skills

[11] The exclusion restriction variables used for identification are: Private Sector, Permanent Job, Promotion Prospects in primary job, and Annual Increments.

and expertise and as a stepping stone to a new career, particularly one that involves self-employment. The other two alternative specifications (I and III) reveal further information regarding the occupational choice in the new primary job. According to the first specification, dual job-holders are more likely to do a different occupation that entails self-employment, compared to those who have only one job. This result appears to be driven by those who are "serial moonlighters", as can be seen by the findings of the third model.

Due to space limitations we refrain from an extensive discussion of the remaining results, though some findings merit further attention. In particular, individuals with lengthier general labour market experience and occupation-specific experience are estimated to be less likely to change occupations in their new primary job. This is a finding that one would expect *a priori*, since individuals are expected to enjoy larger wage premiums by performing tasks on which they have already accumulated the necessary skills and experience. Also, those with higher seniority in their primary job at period t are more likely to do a different occupation when they get a new job or new position at period t+1. The effect in the former case, new job, may suggest that a change in career or occupation may be one of the main reasons why someone with lengthy employer-tenure would decide to change their job after all. While, the effect on the latter, new position, may capture the effect of accumulated seniority on the probability of being promoted.

For those who get a new job at the next period, the probability of deciding to do a different occupation than before is reduced as the local unemployment rate increases. It appears that increased labour market uncertainty, as captured by the local unemployment rate, deters people from pursuing different career paths and exploring new occupations.

Finally, it is worth pointing out that there is limited evidence of sample selection bias. Specifically, the inverse Mills ratio is negative and significant only for those who get a new position, suggesting that the characteristics that make individuals more likely to get a new position with their current employer, make them less likely also to do a different occupation in that new position.

5. Conclusion

This study has investigated the inter-related dynamics of multiple job-holding, human capital and occupational choices between primary and secondary jobs, using a panel sample of UK employees from the British Household Panel Survey (BHPS) for the years 1991-2005. The sequential profile of the working lives of employees has been examined, investigating the impact of multiple job-holding on the probability of job mobility and the associated spillover effects on occupational transition between alternative main jobs.

The analysis reveals that multiple job-holding, in addition to being a temporary response to hours-constraints, increased labour market uncertainty, and financial shocks, contains a permanent labour market element as it appears to be persistent over time. The examination of the occupational choice in the second job also provides some interesting insights. Individuals facing increased commitments or financial constraints are found to be more likely to do the same occupation in both their primary and secondary job, exploiting the higher earnings opportunities that their accumulated occupational experience may secure. This result is further strengthened by the fact that individuals with lengthier occupational experience in their primary job are less likely to choose a different occupation in their second job. Nevertheless, individuals who enjoy a relative sense of financial security are found to be

more likely to explore different occupational paths in their secondary employment to satisfy their intrinsic preferences.

Multiple job-holding is estimated to be an important determinant of job mobility decisions. Moonlighting is found to increase the probability of becoming self-employed or getting a new job, while it decreases the probability of becoming unemployed or inactive, compared to remaining in the same job. The estimates also suggest that there are human capital spill-over effects between primary and secondary employment. The occupational choices that individuals make as dual job-holders play an important role in the occupational paths that they follow afterwards. In particular, individuals who carry out the same occupation in the primary and secondary job at period t are less likely to perform a different occupation in the new primary job at period t+1. The opposite is true for those who do different occupations in their primary and secondary jobs at the previous period t. The evidence provided in this study suggests that individuals may be using dual job-holding as a conduit for obtaining new skills and expertise and as a stepping stone to new careers, particularly ones that involve self-employment.

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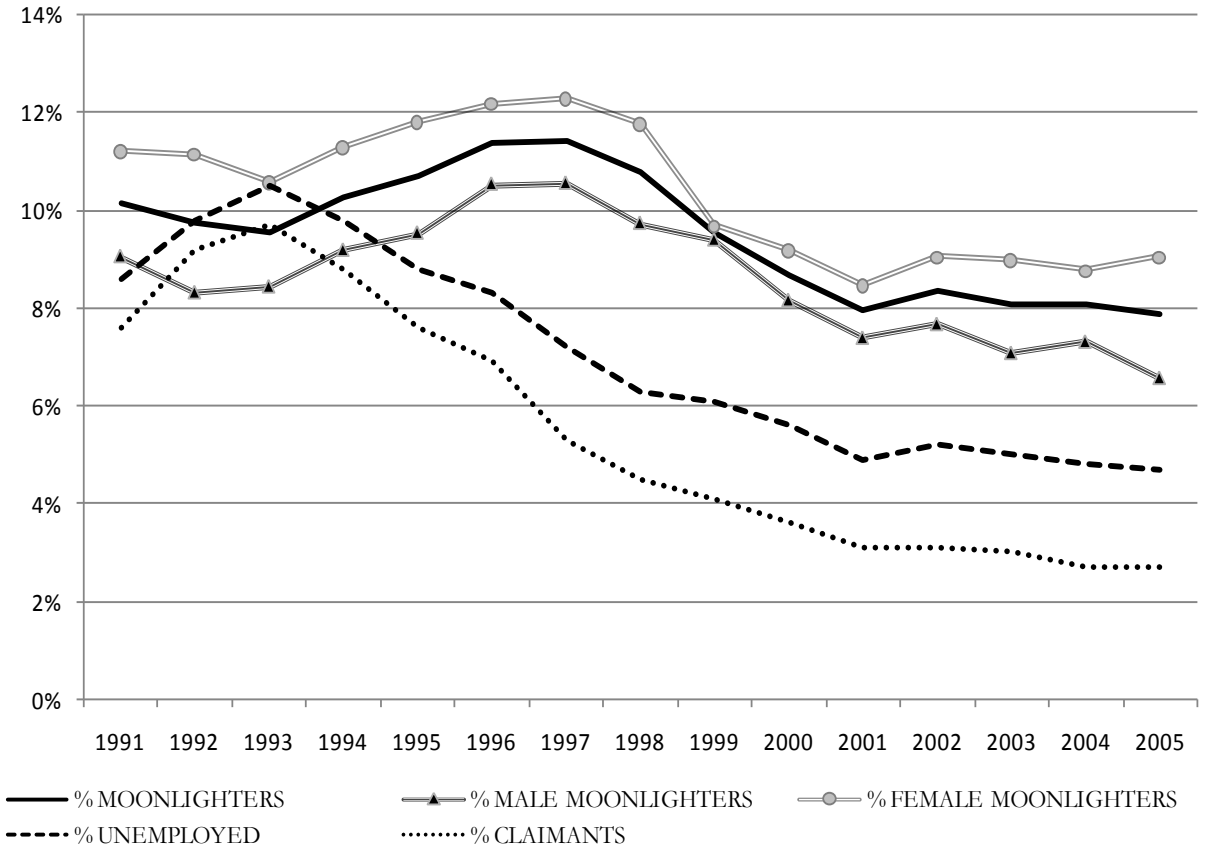
Figure 1
The Incidence of Male Dual Job-Holding and Unemployment Rates



Notes:
Moonlighting data are from the BHPS. Unemployment and Local Claimants' rate data are from National Statistics Online.

Table 1
Summary Statistics for Primary and Secondary Jobs

Sample of paid employees in primary job	Primary Job	Secondary Job
Number of Observations	37,772	3,211
Number of Individuals	5,590	1,221
Dual Job Holder	8.5%	-
Weekly Hours of Work	39.41	24.27
(St.Dev.)	(7.6)	(23.5)
Real Monthly Earnings	1,328.88	209.74
(St.Dev.)	(877.5)	(400.9)
Self-Employed	-	46.32%
Paid Employee	-	52.46%
Different 1-digit occupation from primary	-	67.3%
Same 1-digit occupation as in primary	-	32.7%
Serial Moonlighter		61.9%
Occupation		
Managers & administrators	17.9%	6.94'%
Professional occupations	10.5%	10.68'%
Assoc. professional & technical occ.	10.7%	21.92'%
Clerical & secretarial occupations	9.7%	3.83'%
Craft & related occupations	18.6%	18.09'%
Personal & protective service occ.	6.5%	18.33'%
Sales occupations	4.6%	3.32'%
Plant & machine operatives	14.7%	5.31'%
Other occupations	6.9%	11.60'%

Table 2
Summary Statistics and Mean Differences

Sample		**Employed**			**Dual Job Holders**	
Panel	*(A)*	*(B)*			*(C)*	
Variable	*Pooled*	*Dual-Job*	*Single-Job*		*Same*	*Different*
Real Gross Usual Monthly Earnings	1,340.8	1,229.6	1,351.3***		1,367.7***	1,163.1
Hourly Wage	7.50	7.19	7.54***		7.95***	6.82
Low-Paid Group	8.3%	13.2%***	7.9%		10.5%	14.6%***
Real Equivalized Household Income	20,915.6	19,945.6	21,008.6***		21,458.1***	19,228.0
Financially Vulnerable Group	18.0%	22.7%***	17.6%		23.3%	22.4%
Cohabiting/Married	73.8%	70.6%	74.1%***		76.1%***	68.0%
Spouse/Partner Employed	58.0%	55.7%	58.2%***		56.7%	55.3%
Age	37.50	36.18	37.62***		36.49	36.03
Potential Labour Market Experience (Age-School Leaving Age)	20.74	18.95	20.91***		18.98	18.95
Occupational Experience	11.18	10.69	11.23***		11.37***	10.37
Job Tenure	5.70	5.43	5.72***		5.79**	5.25
Usual Weekly Hours of Work	39.44	38.25	39.55***		38.57	38.10
Full-time job	96.5%	92.5%	96.9%***		92.6%	92.5%
Wants to work more hours in primary occupation	6.9%	10.5%***	6.5%		8.4%	11.6%***
Wants to work the same hours in primary occupation	55.5%	55.9%	55.5%		56.9%	55.7%
Wants to work less hours in primary occupation	35.6%	31.3%	36.0%***		32.4%	31.0%
Paid Overtime hours of work	3.03	2.35	3.10***		2.44	2.31
Occupation: Skilled Non-Manual Occupations	47.0%	47.1%	47.0%		56.9%***	42.3%
Skilled Manual Occupations	10.7%	11.8%**	10.6%		17.5%***	9.1%
Unskilled Non-Manual Occupations	20.8%	22.1%*	20.6%		14.9%	25.6%***
Unskilled Manual Occupations	21.6%	19.0%	21.8%***		10.8%	23.0%***
Managers & administrators	17.9%	14.3%	18.2%***		8.3%	17.2%***
Professional occupations	10.5%	15.2%***	10.1%		20.6%***	12.6%
Assoc. professional & technical occ.	10.7%	11.8%**	10.6%		17.5%***	9.1%
Clerical & secretarial occupations	9.7%	8.2%	9.8%***		3.2%	10.7%***
Craft & related occupations	18.6%	17.6%	18.7%		28.0%***	12.5%
Personal & protective service occ.	6.5%	8.9%***	6.3%		10.2%*	8.2%
Sales occupations	4.6%	5.0%	4.6%		1.5%	6.7%***
Plant & machine operatives	14.7%	11.7%	14.9%***		5.2%	14.9%***
Other occupations	6.9%	7.3%	6.9%		5.6%	8.2%***
Job Transitions in the next year:						
Self-Employed	2.3%	4.1%***	2.1%		4.0%	4.1%
Paid Employee	93.6%	92.2%	93.7%***		92.5%	92.1%
Employed in a New Job with a New Employer	11.8%	14.2%***	11.5%		14.1%	14.3%
Employed in a New Position with the Same Employer	13.9%	14.2%	13.9%		12.9%	14.7%
Employed in the Same Position with the Same Employer	74.4%	71.6%	74.6%***		73.0%	71.0%
Unemployed	2.3%	2.1%	2.3%		2.3%	2.0%
Inactive	1.9%	1.7%	1.9%		1.3%	1.7%

Notes: * p<0.10, ** p<0.05, *** p<0.01 from a t-test between mean differences.

Table 3: The Profile of the Dual Job-Holder
Wooldridge Estimator: Dynamic Random Effects Probit with Mundlak terms

Dependent Variable: Dual-Job Holder	***Coef.***	***[S.E.]***	***M.Eff.***	***[S.E.]***
$Moonlighting_{(t-1)}$	1.292***	[0.040]	0.174***	[0.012]
$Moonlighting_{(Year1)}$	0.967***	[0.057]	0.101***	[0.010]
$Log(Equivalized\ Household\ Income)_{t-1}$	-0.108***	[0.041]	-0.005***	[0.002]
Local Unemployment Rate	0.026**	[0.012]	0.001**	[0.001]
Log(Experience)	-0.102	[0.091]	-0.005	[0.004]
Log(Occupational Experience)	0.011	[0.033]	0.001	[0.002]
Log(Tenure)	0.066***	[0.025]	0.003***	[0.001]
Wants to work more hours in primary job	0.187***	[0.069]	0.011**	[0.005]
Wants to work less hours in primary job	-0.074*	[0.042]	-0.003*	[0.002]
Log(Weekly hours in primary job)	-0.065	[0.101]	-0.003	[0.005]
Log(Paid Overtime)	-0.035***	[0.011]	-0.002***	[0.001]
Cohabiting/Married	-0.039	[0.090]	-0.002	[0.004]
Log(No. of Children)	0.007	[0.021]	0.001	[0.001]
Spouse Employed	-0.039	[0.065]	-0.002	[0.003]
Private Sector	-0.151*	[0.086]	-0.008	[0.005]
Permanent Job	-0.061	[0.095]	-0.003	[0.005]
Promotion Prospects in primary job	-0.095**	[0.043]	-0.005**	[0.002]
Annual Increments	-0.084**	[0.042]	-0.004**	[0.002]
Graduate Degree	0.165	[0.296]	0.009	[0.019]
University Degree	*[REF.]*		*[REF.]*	
HND, HNC, Teaching Degree	0.369	[0.328]	0.024	[0.028]
A-Level	0.180	[0.227]	0.009	[0.013]
O-Level	0.020	[0.255]	0.001	[0.012]
CSE	-0.800*	[0.474]	-0.020***	[0.005]
No Education	0.424	[0.424]	0.027	[0.036]
Managers and Administrators	*[REF.]*		*[REF.]*	
Professional occupations	0.149	[0.100]	0.008	[0.006]
Associate professional & technical occupations	0.109	[0.087]	0.006	[0.005]
Clerical & secretarial occupations	0.140	[0.097]	0.007	[0.006]
Craft & related occupations	0.137	[0.101]	0.007	[0.006]
Personal & protective service occupations	0.336**	[0.130]	0.022**	[0.011]
Sales occupations	0.227*	[0.118]	0.013	[0.008]
Plant & machine operatives	0.127	[0.102]	0.007	[0.006]
Other occupations	0.187	[0.114]	0.010	[0.007]
Means:				
Local Unemployment Rate	-0.044**	[0.017]	-0.002**	[0.001]
Log(Experience)	0.117	[0.097]	0.006	[0.005]
Log(Occupational Experience)	-0.099*	[0.055]	-0.005*	[0.003]
Log(Tenure)	-0.134***	[0.043]	-0.006***	[0.002]
Constant	0.571	[0.613]		
ρ	0.316***	[0.012]		
Permanent Effects:				
Local Unemployment Rate	-0.018	[0.012]		
Log(Experience)	0.015	[0.039]		
Log(Occupational Experience)	-0.088**	[0.044]		
Log(Tenure)	-0.067**	[0.034]		
Average Predicted Probability			0.0515	
Average Derivative Adjustment Factor			0.0489	
No. of Observations		28,823		
No. of Individuals		5,218		
Log Likelihood		-5,120.0		
Wald χ^2		2,438.3***		
LR χ^2 (ρ=0)		459.1***		

Notes: * p<0.10, ** p<0.05, *** p<0.01 The specification also includes a constant term and the means of all independent variables; The coefficients and standard errors of the permanent effects are derived from tests of the linear constraint that the summation of the level and the mean effect of each variable are equal to zero, e.g. $\beta_{(\text{Local Unemployment Rate})}+\delta_{(\text{Local Unemployment Rate})}=0$.

Table 4
Dual Job Holding and Occupational Choice

Dep. Var.: ***Different 1-digit SOC between 1st and 2nd job***	(1) Linear Probability Model		(2) Probit Model		(3) Random Effect Probit	
	Coef.	***[B.S.E.]***	***M. Eff.***	***[B.S.E.]***	***M.Eff.***	***[S.E.]***
Difference in hourly wage (primary occ. vs. next best)	-0.094***	[0.029]	-0.103***	[0.034]	-0.086**	[0.043]
Local Unemployment Rate	0.006	[0.008]	0.008	[0.009]	0.010	[0.015]
Log (Equivalized Annual Household Income)$_{t-1}$	-0.041	[0.025]	-0.048*	[0.029]	-0.056	[0.034]
Log(Experience)	0.049***	[0.016]	0.052***	[0.018]	0.026	[0.030]
Log(Occupational Experience)	-0.049***	[0.014]	-0.056***	[0.017]	-0.054**	[0.023]
Log(Tenure)	0.013	[0.011]	0.015	[0.013]	0.026	[0.017]
Wants to work more hours in primary job	0.034	[0.032]	0.033	[0.037]	0.04	[0.044]
Wants to work less hours in primary job	-0.018	[0.020]	-0.024	[0.023]	0.01	[0.029]
Log(Weekly hours in primary job)	-0.057	[0.041]	-0.06	[0.048]	-0.063	[0.062]
Log(Paid Overtime)	-0.009*	[0.005]	-0.009	[0.006]	-0.008	[0.008]
Cohabiting/Married	-0.217***	[0.038]	-0.219***	[0.033]	-0.169***	[0.040]
Log(No. of Children)	-0.005	[0.008]	-0.005	[0.009]	0.005	[0.013]
Private Sector	-0.057**	[0.027]	-0.062**	[0.029]	-0.049	[0.039]
Permanent Job	0.026	[0.048]	0.03	[0.055]	-0.014	[0.059]
Promotion Prospects in primary job	0.059***	[0.020]	0.065***	[0.023]	0.043	[0.029]
Annual Increments	-0.011	[0.021]	-0.011	[0.024]	0.013	[0.029]
Spouse Employed	0.135***	[0.030]	0.151***	[0.033]	0.110***	[0.043]
Graduate Degree	0.055	[0.046]	0.058	[0.044]	0.063	[0.067]
HND, HNC, Teaching Degree	0.075*	[0.042]	0.083**	[0.040]	0.138***	[0.043]
A-Level	0.021	[0.037]	0.025	[0.039]	0.113**	[0.052]
O-Level	0.059*	[0.036]	0.062*	[0.037]	0.169***	[0.048]
CSE	-0.097*	[0.051]	-0.118*	[0.061]	-0.001	[0.093]
No Education	-0.092**	[0.046]	-0.113**	[0.055]	0.075	[0.067]
Professional occupations	-0.292***	[0.039]	-0.347***	[0.048]	-0.331***	[0.082]
Associate professional & technical occupations	-0.320***	[0.037]	-0.382***	[0.045]	-0.503***	[0.073]
Clerical & secretarial occupations	-0.025	[0.037]	-0.019	[0.060]	-0.021	[0.076]
Craft & related occupations	-0.325***	[0.034]	-0.373***	[0.043]	-0.567***	[0.075]
Personal & protective service occupations	-0.267***	[0.041]	-0.330***	[0.051]	-0.464***	[0.100]
Sales occupations	0.036	[0.040]	0.085	[0.069]	0.056	[0.078]
Plant & machine operatives	0.057*	[0.032]	0.068	[0.044]	0.004	[0.069]
Other occupations	-0.052	[0.043]	-0.081	[0.061]	-0.247**	[0.101]
Mills Ratio	0.083*	[0.048]	0.099*	[0.056]	-	
Constant	1.188***	[0.284]	-		-	
ϱ	-		-		0.695***	[0.033]
Average Predicted Probability	-		0.6627		0.7476	
Average Derivative Adjustment Factor	-		0.2235		0.1887	
No. of Observations	2,364		2,364		2,364	
No. of Individuals	919		919		919	
No. of Observations (1st stage equation)	36,980		36,980		-	
Log Likelihood	-1,362.5		-1,290.3		-1,089.3	
Wald χ^2	645.2***		358.6***		186.9***	
LR test of ϱ =0					405.5***	

Notes: * p<0.10, ** p<0.05, *** p<0.01
The specification includes year fixed effects and a constant term
Bootstrapped Standard Errors in Columns (1) and (2), based on 1,000 replications
Panels (1) and (2) are 2nd stage regressions. The 1st stage is a selection equation as proposed by Wooldridge (1995) and Semykina and Wooldridge (2005). Panel (3) is from a standard model with random effects, without selection correction.
The reference groups remain the same as in Table 3.

Table 5
Job Mobility, Occupational Choice, and Dual Job Holding

	(A) Random Effects Probit				(B) Linear Probability Model with selectivity correction		
Sample	***Employed$_t$***				***Job Switchers***		
Dependent Variable:	Mobility$_{t+1}$ into:				Different occupation in:		
	(A1)	***(A2)***	***(A3)***	***(A4)***	***(B1)***	***(B2)***	***(B3)***
	Self-Emp.	**New Job**	**New Position**	**Not Employed**	**Self-Emp.**	**New Job**	**New Position**
Multiple Job-Holding (three alternative specifications)							
(I) Moonlighter	0.015***	0.020***	0.008	-0.007**	0.097*	-0.003	-0.014
	[0.003]	[0.008]	[0.008]	[0.003]	[0.057]	[0.028]	[0.028]
(II) Different Occupation in 2nd Job	0.015**	0.028**	0.014	-0.008	0.257***	0.058*	0.01
	[0.006]	[0.013]	[0.015]	[0.006]	[0.062]	[0.033]	[0.033]
Similar Occupation between 2nd Job	0.016***	0.016*	0.006	-0.007*	-0.215***	-0.129***	-0.072
	[0.004]	[0.009]	[0.010]	[0.004]	[0.078]	[0.045]	[0.045]
(III) Serial Moonlighter	0.015***	0.001	0.009	-0.009*	0.203***	0.02	0.015
	[0.005]	[0.010]	[0.012]	[0.005]	[0.078]	[0.045]	[0.039]
Single Moonlighter	0.017***	0.033***	0.005	-0.005	0.061	-0.02	-0.042
	[0.005]	[0.010]	[0.011]	[0.005]	[0.072]	[0.033]	[0.035]
Remaining regressors based on (I) specification							
Local Unemployment Rate	-0.0002	-0.007***	-0.002	-0.001	0.011	-0.017**	0.001
	[0.0005]	[0.002]	[0.002]	[0.001]	[0.018]	[0.007]	[0.006]
Log(Equivalized Household Income)	-0.0002	-0.019***	-0.005	-0.015***	0.029	-0.063***	-0.01
	[0.001]	[0.005]	[0.006]	[0.003]	[0.044]	[0.018]	[0.018]
Log(Experience)	0.0004	-0.001	0.001	0.004**	0.044	-0.023*	0.003
	[0.001]	[0.003]	[0.003]	[0.002]	[0.035]	[0.013]	[0.012]
Log(Occupational Experience)	-0.0002	-0.041***	-0.041***	-0.003*	-0.079***	-0.083***	-0.073***
	[0.001]	[0.003]	[0.004]	[0.002]	[0.027]	[0.013]	[0.012]
Log(Tenure)	-0.004***	-0.061***	-0.043***	-0.006***	-0.036	0.033***	0.032***
	[0.001]	[0.003]	[0.003]	[0.001]	[0.024]	[0.013]	[0.011]
Wants to work more hours in primary job	0.004	0.032***	0.026***	-0.001	-0.122	-0.053*	0.044
	[0.003]	[0.009]	[0.010]	[0.004]	[0.076]	[0.030]	[0.028]
Wants to work less hours in primary job	0.0005	0.011***	-0.001	0.006**	0.021	0.015	0.003
	[0.001]	[0.004]	[0.005]	[0.002]	[0.045]	[0.020]	[0.017]
Log(Weekly hours in primary job)	0.001	0.035***	-0.020*	-0.026***	-0.055	-0.109***	-0.082**
	[0.002]	[0.010]	[0.012]	[0.005]	[0.063]	[0.039]	[0.037]
Log(Paid Overtime)	-0.001***	-0.001	0.001	-0.003***	-0.007	0.001	-0.007*
	[0.0003]	[0.001]	[0.001]	[0.001]	[0.011]	[0.004]	[0.004]
Private Sector	0.008***	0.048***	0.01	0.005*	-	-	-
	[0.001]	[0.005]	[0.006]	[0.003]			
Permanent Job	-0.031***	-0.226***	-0.129***	-0.163***	-	-	-
	[0.009]	[0.018]	[0.018]	[0.018]			
Promotion Prospects	-0.007***	-0.030***	0.051***	-0.015***	-	-	-
	[0.001]	[0.004]	[0.005]	[0.003]			
Receives Annual Increments	-0.007***	-0.022***	-0.008*	-0.011***	-	-	-
	[0.001]	[0.004]	[0.005]	[0.002]			
Mills Ratio	-	-	-	-	0.053	-0.012	-0.083***
					[0.043]	[0.021]	[0.022]
ϱ	0.278***	0.096***	0.102***	0.233***	-	-	-
	[0.019]	[0.014]	[0.012]	[0.022]			
Observed Probability	0.0321	0.1372	0.1581	0.0574	-	-	-
Predicted Probability	0.0147	0.1250	0.1439	0.0421	-	-	-
Derivative Adjustment Factor	0.0145	0.1094	0.1232	0.0403	-	-	-
Number of Observations	22,149	24,936	25,583	22,834	573	3,374	4,021
Number of Individuals	4,806	5,044	5,036	4,943	501	2,001	2,237
Uncensored Observations	-	-	-	-	22,181	25,716	26,361
Log-Likelihood	-2,423.3	-8,278.4	-10,133.0	-4,284.2	-	-	-
Wald χ^2	362.8***	2,255.1***	1,300.2***	868.0***	231.2***	230.8***	351.9***

Notes:
* p<0.10, ** p<0.05, *** p<0.01.
(A1)-(A4) present marginal effects and standard errors from a random effects probit model. (B1)-(B3) show coefficients and bootstrapped standard errors from a linear probability model (based on 1,000 replications).
The specifications also includes marital status, number of children, partner's employment status and dummy variables for: Occupation {9}; Education {7}; Wave {15}, and a constant term. The significance of the ϱ-term is given from a LR test that ϱ=0.

Appendix:

Table A1
Imputation of Occupational Experience

Dependent Variable: Occupational Experience (non-continuous); Pooled OLS with wave fixed effects

	Coef.	*[S.E]*		*Coef.*	*[S.E]*
Log(Real Monthly Earnings)	3.188***	[0.110]	Real Estate, Renting and Business	-0.155	[0.332]
Cohabiting/Married	-0.174	[0.128]	Public Administration and Defense	1.763***	[0.353]
Log(No. of children)	-0.055	[0.038]	Education	2.293***	[0.362]
Age	0.440***	[0.006]	Health and Social Work	2.325***	[0.351]
Male	-0.161	[0.128]	Other Com., Social & Personal Service	1.431***	[0.412]
New Job	-2.034***	[0.172]	Private Households with Employees	4.782***	[1.172]
New Position	-1.939***	[0.146]	Extra-territorial Org. & Bodies	1.104	[1.200]
Private Sector	0.054	[0.158]	*Regions:*		
Permanent Job	0.269	[0.257]	Greater London	*[REF.]*	
Full-Time Job	-1.644***	[0.168]	South East	0.443**	[0.189]
Graduate Degree	-0.630**	[0.309]	East Anglia	1.069***	[0.292]
University Degree	*[REF.]*		South West	0.545**	[0.224]
HND, HNC, Teaching Degree	-0.237	[0.220]	West Midlands	1.284***	[0.227]
A-Level	0.248	[0.196]	East Midlands	1.555***	[0.230]
O-Level	0.976***	[0.193]	Yorks & Humber	1.068***	[0.226]
CSE	0.875***	[0.264]	North West	2.133***	[0.215]
No Education	0.896***	[0.217]	North	1.278***	[0.247]
Occupations:			Wales	1.835***	[0.277]
Managers And Administrators	*[REF.]*		Scotland	2.148***	[0.226]
Professional occupations	4.921***	[0.210]	*Waves:*		
Assoc. professional & technical occ.	4.017***	[0.194]	Wave 1	*[REF.]*	
Clerical & secretarial occupations	9.626***	[0.182]	Wave 2	0.359	[0.226]
Craft & related occupations	10.844***	[0.217]	Wave 3	0.919***	[0.227]
Personal & protective service occ.	4.597***	[0.220]	Wave 4	0.281	[0.232]
Sales occupations	4.965***	[0.256]	Wave 5	0.098	[0.237]
Plant & machine operatives	6.359***	[0.227]	Wave 6	-0.025	[0.239]
Other occupations	4.942***	[0.248]	Wave 7	0.016	[0.242]
Industries:			Wave 8	-0.182	[0.246]
Agricult., Hunting, Forestry & Fishing	4.402***	[0.508]	Wave 9	-0.394	[0.250]
Mining and Quarrying	0.615	[0.674]	Wave 10	-0.303	[0.255]
Manufacturing	-0.184	[0.307]	Wave 11	-0.387	[0.261]
Electricity, Gas and Water Supply	-1.483***	[0.540]	Wave 12	-0.541**	[0.269]
Construction	*[REF.]*		Wave 13	-1.260***	[0.287]
Wholesale and Retail Trade	0.767**	[0.331]	Wave 14	-1.406***	[0.293]
Hotels and Restaurants	0.086	[0.420]	Wave 15	-1.638***	[0.302]
Transport, Storage and Communic.	1.222***	[0.357]	CONSTANT	-35.126***	[0.888]
Financial Intermediation	0.473	[0.366]			
No. of Observations	26,241		R-squared	0.337	
No. of Individuals	2,730		F-statistic	211.18***	

Notes:
* p<0.10, ** p<0.05, *** p<0.01. The reference groups remain the same as in Table 3.

A.2 *Calculation of the difference in earnings (primary occupation vs. next best alternative) variable*

The best alternative occupation is detected based on an equation describing the occupational choice in the second job, using a multinomial probit model. Specifically, we let y_{2j} denote the individual occupational choice of the second job, where y_{2j} can take the unordered multinomial values j = {0,1,...,9} reflecting the 9 different 1-digit SOC groups. We then investigate how the set of conditioning variables $\boldsymbol{v} = \{y_{1j}, \boldsymbol{x}\}$, where y_{1j} is the occupation of the individual in the primary job and $\boldsymbol{x}$ captures other demographic and primary job-specific variables, affect the probability of secondary-job selection, $P(y_{2j} = j|\boldsymbol{v})$, *ceteris paribus*.

The marginal effects from the estimated model are summarized in *Table A2*. Based on these estimates, the predicted probabilities of occupational choice in the second job, conditional on the occupation of the primary job, are shown in *Table A3*. The best alternative occupations can be easily obtained by looking across each row of *Table A3* and selecting the cell with the highest predicted probability, excluding the elements of the diagonal. In doing so, it is evident that, for example, the best alternative occupation in the secondary job for those currently employed as Managers or Administrators in their primary job is an Associated Professional and Technical occupation.

Utilizing the information of *Table A3*, the predicted wages from the best alternative occupation are hence calculated based on an hourly wage equation model, estimated and presented in *Table A4*:

$$lnw_{it} = x_{it}^{'}\beta + \zeta y_{1(j)it} + g_{it} \qquad \text{(A1)}$$

where, for instance, the predicted wage for Managers or Administrators (SOC code 1) is obtained as $\widehat{lnw}_{it(1)} = x_{it}^{'}\hat{\beta} + \hat{\zeta} y_{1(3)it}$, which is the wage the individuals would receive if they were employed in the next best category of Associated Professional and Technical occupation instead (SOC code 3).

The difference in the earnings capacity between the current and the best alternative occupation is thus calculated as the difference between the wages received from the current occupation in the primary job and the predicted wages from the best alternative occupation in the second job.

Table A2
Multinomial Probit Model of Occupational Choice on the 2nd Job

Multinomial Probit: Marginal effects and robust standard errors; Dependent Variable: 1-digit SOC in the 2nd job

	MANADMIN	***PROFESNL***	***ASSOCTECH***	***CLERICAL***	***CRAFT***	***PERS PROTECT***	***SALES***	***PLANT MACHINE***	***OTHER OCC***
Occupational Experience	0.009	-0.010	0.061*	-0.008	-0.025	0.010	-0.012*	-0.013	-0.011
	(0.010)	(0.013)	(0.033)	(0.008)	(0.028)	(0.040)	(0.007)	(0.013)	(0.023)
Log(Equivalized Household Income)$_{t-1}$	0.033**	-0.009	0.064*	0.006	-0.023	-0.060**	0.003	0.033*	-0.045**
	(0.016)	(0.013)	(0.036)	(0.008)	(0.028)	(0.029)	(0.009)	(0.017)	(0.022)
Log(Real Monthly Earnings)	0.030*	0.028*	-0.061	0.016	-0.006	0.031	0.007	-0.015	-0.031
	(0.017)	(0.016)	(0.040)	(0.010)	(0.033)	(0.039)	(0.011)	(0.019)	(0.026)
Age	-0.001	0.008	0.002	-0.002	-0.009	0.005	-0.009***	0.009	-0.003
	(0.006)	(0.005)	(0.013)	(0.003)	(0.010)	(0.011)	(0.003)	(0.006)	(0.008)
Age squared/1,000	0.026	-0.065	-0.057	0.052	0.102	-0.091	0.115***	-0.106	0.025
	(0.077)	(0.069)	(0.158)	(0.038)	(0.132)	(0.142)	(0.039)	(0.070)	(0.106)
Cohabiting/Married	0.041***	-0.010	0.016	-0.0001	0.042	-0.101**	0.001	0.011	-0.001
	(0.013)	(0.019)	(0.042)	(0.009)	(0.032)	(0.040)	(0.011)	(0.017)	(0.029)
Log(No. of children)	-0.004	0.001	-0.006	0.004	0.0003	0.003	0.006*	-0.014**	0.009
	(0.005)	(0.005)	(0.013)	(0.003)	(0.011)	(0.013)	(0.003)	(0.005)	(0.009)
Full-Time Job	-0.047	-0.034	0.075	-0.094*	0.037	0.082	0.006	0.004	-0.029
	(0.045)	(0.036)	(0.062)	(0.051)	(0.055)	(0.050)	(0.017)	(0.027)	(0.048)
Day-Shift	0.004	0.002	0.002	0.024***	0.003	-0.007	-0.006	-0.007	-0.015
	(0.013)	(0.013)	(0.036)	(0.006)	(0.030)	(0.034)	(0.008)	(0.015)	(0.025)
Training	0.005	0.013	0.057*	-0.0002	-0.0008	-0.005	-0.0001	-0.018*	-0.051***
	(0.012)	(0.010)	(0.030)	(0.006)	(0.021)	(0.023)	(0.007)	(0.010)	(0.018)
Permanent Job	-0.004	-0.032	-0.027	-0.035	0.019	0.045	0.005	0.009	0.019
	(0.034)	(0.034)	(0.064)	(0.027)	(0.047)	(0.042)	(0.017)	(0.029)	(0.034)
Promotion Prospects	-0.010	-0.0004	0.023	0.020***	-0.013	-0.025	0.004	-0.004	0.004
	(0.012)	(0.010)	(0.031)	(0.007)	(0.024)	(0.029)	(0.007)	(0.013)	(0.020)
Annual Increments	0.004	0.005	0.030	-0.003	-0.034	-0.012	-0.013*	-0.015	0.038*
	(0.012)	(0.011)	(0.032)	(0.007)	(0.021)	(0.027)	(0.008)	(0.011)	(0.020)
Private Sector	0.029**	-0.069***	0.005	0.002	-0.023	0.043	-0.0001	-0.010	0.022
	(0.014)	(0.023)	(0.046)	(0.011)	(0.036)	(0.040)	(0.009)	(0.021)	(0.025)
Graduate Degree	-0.013	0.014	0.023	0.027	-0.004	-0.125**	0.013	-0.0005	0.066
	(0.019)	(0.023)	(0.080)	(0.031)	(0.085)	(0.060)	(0.025)	(0.044)	(0.057)
HND, HNC, Teaching Degree	-0.035**	-0.011	-0.133**	0.059	0.248**	-0.087	-0.017	0.040	-0.064*
	(0.017)	(0.020)	(0.059)	(0.051)	(0.111)	(0.055)	(0.010)	(0.048)	(0.035)
A-Level	-0.055***	-0.015	-0.093	0.034	0.244***	-0.081	-0.018	0.054	-0.069**
	(0.017)	(0.017)	(0.059)	(0.026)	(0.078)	(0.057)	(0.011)	(0.037)	(0.033)
O-Level	-0.048***	-0.040***	-0.092	0.044	0.191**	-0.067	0.009	0.055	-0.052
	(0.017)	(0.015)	(0.058)	(0.027)	(0.074)	(0.059)	(0.015)	(0.038)	(0.035)
CSE	-0.019	0.0002	-0.229***	0.039	0.215**	-0.074	-0.002	0.140*	-0.071**
	(0.027)	(0.032)	(0.053)	(0.041)	(0.108)	(0.068)	(0.017)	(0.084)	(0.034)
No Education	-0.053***	-0.054***	-0.165***	0.017	0.402***	-0.160***	-0.009	0.065	-0.044
	(0.014)	(0.012)	(0.059)	(0.027)	(0.102)	(0.044)	(0.012)	(0.053)	(0.039)
Professional occupations	-0.046***	0.081**	0.138**	-0.007	0.002	-0.151***	0.014	-0.002	-0.027
	(0.012)	(0.035)	(0.070)	(0.012)	(0.056)	(0.036)	(0.020)	(0.024)	(0.038)
Assoc. professional & technical occ.	-0.049***	-0.029***	0.174***	0.026	0.078	-0.146***	0.022	-0.033**	-0.044

	(0.010)	(0.010)	(0.066)	(0.021)	(0.059)	(0.034)	(0.018)	(0.014)	(0.032)
Clerical & secretarial occupations	-0.061***	-0.036***	-0.114**	0.085*	0.064	-0.024	0.002	0.002	0.082
	(0.010)	(0.012)	(0.052)	(0.047)	(0.070)	(0.058)	(0.018)	(0.030)	(0.057)
Craft & related occupations	-0.067***	-0.053***	-0.237***	-0.029***	0.446***	-0.084*	-0.025***	0.014	0.035
	(0.011)	(0.011)	(0.041)	(0.007)	(0.072)	(0.049)	(0.007)	(0.026)	(0.047)
Personal & protective service occ.	-0.040***	-0.045***	-0.224***	-0.016	-0.055	0.244***	0.013	0.042	0.080
	(0.014)	(0.010)	(0.044)	(0.010)	(0.051)	(0.087)	(0.021)	(0.047)	(0.059)
Sales occupations	0.020	-0.035***	-0.012	0.0009	0.028	-0.052	0.062	-0.032*	0.020
	(0.044)	(0.012)	(0.081)	(0.021)	(0.074)	(0.056)	(0.042)	(0.019)	(0.057)
Plant & machine operatives	-0.063***	-0.059***	-0.072	-0.005	0.002	0.050	-0.010	0.090*	0.067
	(0.011)	(0.011)	(0.063)	(0.011)	(0.050)	(0.069)	(0.011)	(0.048)	(0.048)
Other occupations	-0.024	-0.048***	-0.183***	-0.011	0.099	0.040	-0.004	0.015	0.118**
	(0.016)	(0.010)	(0.046)	(0.007)	(0.067)	(0.079)	(0.015)	(0.031)	(0.053)
No. of Obs. [Individuals]	2,355 [906]								
Log-Likelihood	-3,541.4								
Wald $\chi 2$	3,104.0***								

Notes:
* p<0.10, ** p<0.05, *** p<0.01. The reference groups remain the same as in Table 3. Regional and yearly dummy variables have also been included as controls.

Table A3
Occupational Transitions between 1st and 2nd job: Predicted Probabilities

BHPS, Waves 1-15

	2nd Job / **1st Job**	Group 1 ***Manag.***	Group 2 ***Profess.***	Group 3 ***Associate***	Group 4 ***Clerical***	Group 5 ***Craft***	Group 6 ***Personal***	Group 7 ***Sales***	Group 8 ***Plant***	Group 9 ***Other***
Group 1:	Managers & administrators	**19.1%**	13.0%	***23.5***	6.2%	8.1%	16.7%	2.8%	4.0%	6.7%
Group 2:	Professional occupations	8.0%	**36.7%**	***34.3***	2.7%	3.8%	5.4%	2.6%	2.1%	4.4%
Group 3:	Assoc. professional & technical occ.	7.7%	7.0%	**46.2**	9.3%	***10.8%***	7.6%	4.6%	1.8%	5.2%
Group 4:	Clerical & secretarial occupations	2.0%	3.0%	***20.6***	**15.9%**	13.9%	20.3%	3.5%	5.3%	15.6%
Group 5:	Craft & related occupations	3.0%	0.7%	9.8%	0.3%	**54.3**	***13.7%***	0.8%	6.1%	11.4%
Group 6:	Personal & protective service occ.	5.8%	3.1%	9.9%	1.4%	8.2%	**40.2**	4.9%	10.4%	***16.0%***
Group 7:	Sales occupations	17.9%	1.5%	***26.3***	4.4%	11.4%	16.1%	**10.0%**	1.7%	10.8%
Group 8:	Plant & machine operatives	2.6%	0.2%	21.0%	3.0%	13.5%	***26.4***	2.6%	**15.8%**	15.0%
Group 9:	Other occupations	8.5%	0.7%	11.4%	2.6%	21.8%	***22.8***	3.2%	7.5%	**21.7%**

Notes:
The Table consists of predicted probabilities of 2nd job occupational choice, conditional on 1st job occupational choice, based on estimates of a Multinomial Probit model (presented in detail in *Table A2*).

Table A4
Log Hourly Wage Estimates

	Coef.	*[S.E.]*		*Coef.*	*[S.E.]*
Occupational Experience/10	0.313***	[0.017]	Hotels and Restaurants	-0.334***	[0.026]
Occupational Experience/10 squared	-0.051***	[0.005]	Transport, Storage and Communication	-0.046**	[0.019]
Permanent Job	0.145***	[0.015]	Financial Intermediation	0.153***	[0.027]
Full-time Job	-0.110***	[0.025]	Real Estate, Renting and Business	0.037*	[0.020]
Cohabiting/Married	0.164***	[0.009]	Public Administration and Defense	0.051**	[0.020]
Log(No. of children)	0.016***	[0.003]	Education	-0.125***	[0.026]
Private Sector	-0.029**	[0.012]	Health and Social Work	-0.127***	[0.027]
Annual Increments	0.003	[0.007]	Other Com., Social & Personal Service	-0.184***	[0.029]
Receives bonuses	0.070***	[0.006]	Private Households with Employees	-0.572***	[0.116]
Training	0.021***	[0.006]	Extra-territorial Organizations & Bodies	-0.023	[0.033]
Graduate Degree	0.089***	[0.029]	South East	-0.083***	[0.020]
HND, HNC, Teaching Degree	-0.093***	[0.020]	East Anglia	-0.187***	[0.028]
A-Level	-0.187***	[0.017]	South West	-0.148***	[0.023]
O-Level	-0.259***	[0.017]	West Midlands	-0.216***	[0.023]
CSE	-0.290***	[0.021]	East Midlands	-0.255***	[0.023]
No Education	-0.373***	[0.019]	Yorks & Humber	-0.223***	[0.022]
Health Status: Good	-0.023***	[0.007]	North West	-0.185***	[0.022]
Health Status: Fair	-0.052***	[0.009]	North	-0.212***	[0.025]
Health Status: Poor	-0.062***	[0.016]	Wales	-0.260***	[0.021]
Health Status: Very Poor	-0.138***	[0.039]	Scotland	-0.236***	[0.020]
Firm Size: 25-200	0.111***	[0.009]	Wave 2	0.001	[0.009]
Firm Size: 200-1000	0.174***	[0.010]	Wave 3	-0.042***	[0.009]
Firm Size: More than 1000	0.223***	[0.013]	Wave 4	-0.034***	[0.010]
Professional occupations	-0.098***	[0.017]	Wave 5	-0.036***	[0.011]
Assoc. professional & technical occ.	-0.211***	[0.015]	Wave 6	-0.034***	[0.011]
Clerical & secretarial occupations	-0.563***	[0.015]	Wave 7	-0.056***	[0.011]
Craft & related occupations	-0.506***	[0.014]	Wave 8	-0.042***	[0.011]
Personal & protective service occ.	-0.466***	[0.019]	Wave 9	-0.012	[0.011]
Sales occupations	-0.393***	[0.020]	Wave 10	0.006	[0.011]
Plant & machine operatives	-0.511***	[0.015]	Wave 11	0.033***	[0.011]
Other occupations	-0.564***	[0.016]	Wave 12	0.057***	[0.011]
Agriculture, Hunting, Forestry & Fishing	-0.262***	[0.027]	Wave 13	0.066***	[0.012]
Mining and Quarrying	0.137***	[0.032]	Wave 14	0.070***	[0.011]
Manufacturing	-0.024*	[0.014]	Wave 15	0.092***	[0.012]
Electricity, Gas and Water Supply	0.144***	[0.025]	Constant	2.128***	[0.040]
Wholesale and Retail Trade	-0.158***	[0.017]			
No. of Obs. [Individuals]	35,828	[5,464]			
Log Likelihood	-15,728.6				

Notes:
* p<0.10, ** p<0.05, *** p<0.01. The reference groups remain the same as in Table 3.