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Career Prospects and Tenure-Job Satisfaction Profiles:
Evidence from Panel Data

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*Career Prospects and Tenure-Job Satisfaction Profiles:
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Abstract

This paper investigates the relationship between job tenure and job satisfaction and evaluates whether tenure-job satisfaction profiles are contingent on career advancement opportunities. It uses the British Household Panel Survey Dataset (BHPS). Career status is modelled as an endogenous variable, subject to an initial job choice. The paper concludes that the job satisfaction of individuals employed in jobs with career prospects is not only higher compared with those who are not, but also that their returns to tenure in terms of job satisfaction are significantly higher.

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Keywords: Job satisfaction, employer-tenure and career opportunities.

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1 Introduction

Research in European countries and the U.S suggests that individual job satisfaction can be a strong predictor of job performance and productivity. Importantly, Clegg (1983) has highlighted the positive effect of job satisfaction on workers' productivity and job satisfaction appears to be negatively correlated with both quit behaviour (Freeman, 1978; Akerlof et al., 1988; Gordon and Denisi, 1995) and absenteeism (Drago and Wooden, 1992). Eagly and Chaiken (1993) suggest that "in general, people who evaluate an attitude object favourably tend to engage in behaviours that foster or support it, and people who evaluate an attitude object unfavourably tend to engage in behaviours that hinder or oppose it" (p. 22). Judge et al. (2001) argue that the above implies that attitudes towards the job, which in turn are mirrored on job satisfaction, should be related to the worker's behaviour in carrying out the job tasks and therefore his or her job performance and the resulting productivity. The importance of these findings should not be underestimated given that work is such an important part of individuals' lives and therefore utility derived from work is likely to be an important determinant of individuals' overall well being. In addition, since job satisfaction affects individuals' productive performance it is likely to be one of the important concerns for employers.

Studies have found a number of empirical regularities regarding the factors that affect individuals' job satisfaction such as gender (Clark (1997)), age (Clark et al. (1996)), race (Bartel (1981)), establishment size (Idson (1990)), trade union (Borjas (1979), Miller (1990), Bender and Sloane (1998)), education (Tsang et al. (1991)) and wages (Clark and Oswald (1996), Watson et al. (1996), Hamermesh (2001)).

Interestingly, Clark, Oswald and Warr (1996) and Gardner and Oswald (2001) suggest that job satisfaction is U-shaped with respect to job tenure and Blanchflower and Oswald (1999) shows that workers in jobs with a low risk of job loss have higher levels of job satisfaction compared to the employees who face job insecurity. In addition, Brockner et al., 1988 and Burchellet al., 2000, 2003 show that expectations of possible job loss leads to a deterioration of the employer-employee relationship.

This study re-examines the link between tenure and job satisfaction, and explores whether the tenure-job satisfaction profiles are dependent on the employer-employee relationship. Specifically, it examines if, in a two-tier labour market framework, the tenure-job satisfaction profiles are contingent on the career opportunities offered to the worker by his or her employer. The study uses data from the first 14 waves of the British Household Panel Survey. The results confirm the U-shaped relationship between tenure and job satisfaction found by earlier studies. Importantly, the tenure-job satisfaction profiles exhibit distinct patterns for the workers in a career path compared to those in non-career jobs. The tenure-job satisfaction profile in the non-career jobs is consistently flatter, compared to those in career jobs. This pattern is also evident when stratifying the data by gender and age. The estimates also suggest a negative selection bias in the non-career sector, with the individual and workplace

characteristics prevalent in this sector being negatively associated with workers' perceived job satisfaction.

2 The Issue in Context: Job Satisfaction-Tenure Profile in a Two Tier Labour Market Framework

There is a large body of research literature¹ showing that since firms incur high screening and training costs in hiring new employees, they often attempt to discourage labour turnover and interfirm mobility among their most highly valued workers by establishing long-term employment relationships and by attempting to enhance employees' utility derived from work. This is attained by providing employees with jobs that offer a career path and rewards commensurate with tenure. These workplace arrangements reduce the probability of a separation occurring. Furthermore, Doeringer and Piore (1971), Piore (1973) and Okun (1981)² argue that this entails the creation of a two-tier labour force. In particular, given the costs associated with career structures, firms find it optimal to operate such arrangements for the most valuable part of their labour force and a non-career strategy for the remainder. By minimising the firm's investment in the later section of its labour force, this strategy makes labour an interchangeable factor of production. Thus, for the non-career labour force, job tenure is not rewarded and the tenure-earnings relationship is expected to exhibit a flat profile.

¹ For instance, Mincer (1974), Becker (1975), Burdett (1978), Jovanovic (1979, 1984), Barron et al., (1989), Salop and Salop (1976), Spence (1974), Wilde (1979), Viscusi (1980).

² Similar framework is also developed by Lazear (1990) who shows that in less than a perfectly functioning market a two tier labour force may arise.

However, a number of studies also show that a low risk of job termination and hence a long job tenure is a major factor for the quality of the employer-employee relationship and that a high risk of job loss leads to a deterioration of the employer - employee relationship (Burchellet al., 2000,2003; Brockneret al., 1988). Furthermore, a low risk of job loss enhances job satisfaction. Blanchflower and Oswald (1999) show that workers in jobs with a low risk of job termination record higher levels of job satisfaction and importantly, expectations of possible job loss have the largest negative effects on individuals' job satisfaction. These results are confirmed by Clark (1996, 1997) who demonstrates that a worker's position or potential position in the firm's seniority ladder has a significant effect on the utility he or she derives from work. The above evidence suggests that in the two-tier labour market framework discussed above one should observe upward sloping tenure-job satisfaction profiles in the career jobs and job satisfaction of the non-career section of the labour force to respond much less to the provision of long-term job tenure.

In view of the above, the labour force can be distinguished according to some career prospect criterion (Theodossiou 1997). In Doeringer and Piore's (1971) and Okun's (1981) approach, a career contract is defined as an explicit or implicit guarantee by the employer to some of his or her workers that, given their continuing employment with the firm, they will follow an upward career.

Clearly, the dividing line, which splits off career employees from the rest, will be crucial but a degree of overlapping may be expected since there are various kinds of employer-employee attachments. Nonetheless, it is anticipated that the difference between the working experiences of the two segments is of such a magnitude as to

generate a different job satisfaction determination process for each of them. Although within the same segment there may be some distinction between different occupations and career structures at firm level, one would expect that the same economic forces operate on the demand for labour and, in general, the same institutional arrangements and hierarchical structures affect all job categories and skill levels within the same segment. Thus, within the same segment, a dominant job satisfaction determination pattern will prevail for all groups with similar job tenure. This entails that the intensity with which these factors affect job satisfaction and their significance on the latter in the career and non-career sectors will differ.

3 Econometric Methodology

In light of the earlier discussion, job satisfaction can be formulated as follows³:

$$J_i = J(w_i, T_i, p_i, X_i) \quad (1)$$

where w is the hourly wage rate (adjusted for overtime) and T the job tenure for individual i , p a variable capturing whether the individual is in a career job or not, and X a vector of individual and workplace characteristics.

Provided that the significance of the factor p on job satisfaction is established, the effect of job tenure on job satisfaction in the two sectors of the labour market can be

³ Hamermesh (1977) and Borjas (1979), Freeman (1978) considered job satisfaction to be a function of individuals' earnings and the monetary equivalent of non-pecuniary aspects of the job. Clark and Oswald (1996) formulated job satisfaction for individual i as the utility from work with the form $J_i = J(Y_i, h_i, X_i)$, where Y is labour income, h hours of work and X are a set of individual and job characteristics.

examined. However the process that brings individuals to be allocated to each of the two different sectors is not random. It most likely depends either on the decision of the individual worker or the decision of his or her employer. These decisions may, in turn, depend on one or more of the elements in the vector X of individual and workplace characteristics or on the level of individual hourly earnings or on his or her job tenure. The likelihood of an individual being allotted in one of the sectors can be illustrated as follows:

$$S_i^* = Z_i' h_i + \varepsilon_i \quad (2)$$

where Z contains the set of determining variables⁴, h is an unknown parameter vector and $\varepsilon_i \sim N(0,1)$. The latent dependent variable, S_i^* , is replaced with an ordinal variable defined as S_i which assumes the value 1 if an individual is in the career sector or 0 if the individual is employed in the non-career sector. In this case the observed job satisfaction of the individual would be:

$$J_i^* = \begin{cases} J_{1i} = X_{1i}' b_i + b_{12} w_i + b_{13} T_i + u_{1i} & \text{if } S_i = 0 \\ J_{2i} = X_{2i}' b_i + b_{22} w_i + b_{23} T_i + u_{2i} & \text{if } S_i = 1 \end{cases} \quad (3)$$

where J_{1i} , J_{2i} is the individual's job satisfaction in the non-career and career sectors respectively and u_{1i} , u_{2i} are random error components.

⁴ This equation summarises two decision functions: the decision of the individual to join the promotion queue, S_w , and the decision of employers to select an individual from the queue S_e . However separate decision equations can be estimated only if there is at least one non-overlapping variable in one of the equations. Due to the available set of variables, S_w is indistinguishable from S_e .

Equation (2) indicates that the probability of a career also depends on a vector of personal and workplace characteristics, education and tenure. Therefore, individuals with certain characteristics or working experience will be more likely to achieve a career than others. These attributes may also enhance their job satisfaction. As a result the observed job satisfaction distributions of the career and non-career employees may not be independent of career status. Lee (1978) suggests a two-step estimation procedure for this type of model. This involves first, the estimation of (2) in order for the predicted value of S_i to be obtained, and second the estimation of equation (3), which takes the form:

(i) For workers with a career:

$$J_{2i} = X'_{2i}b_i + b_{22}w_i + b_{23}T_i - \sigma_2 \left\{ \frac{f(\hat{S}_i)}{F(\hat{S}_i)} \right\} + \varepsilon_2 \quad (4)$$

(ii) For workers without a career:

$$J_{1i} = X'_{1i}b_i + b_{12}w_i + b_{13}T_i - \sigma_1 \left\{ \frac{f(\hat{S}_i)}{1 - F(\hat{S}_i)} \right\} + \varepsilon_1 \quad (5)$$

where f is the density function and F the distribution function of the standard normal,

$\sigma_2 = \text{cov}(u_{2i}, \varepsilon)$, $\sigma_1 = \text{cov}(u_{1i}, \varepsilon)$ and $\varepsilon_2, \varepsilon_1$ are the random error components.

Regarding the choice of estimator, this study utilises the panel element of the data set and estimates random-effects models⁵, where the observation unit used is the individual working for a particular employer, i.e. the job match.

4 Data Description

The empirical analysis is based on the British Household Panel Survey (BHPS), a nationally representative household panel survey of around 5,500 households (containing about 10,000 persons), first conducted in the autumn of 1991, and annually thereafter. The sample used here is drawn from the first fourteen waves of BHPS (1991-2004) and consists of male and female full-time employees (at least 30 hours of work normally per week) aged between 18 and 60. The individuals included in the sample are observed at least in two waves. Hence the sample is an unbalanced panel sample. Respondents with randomly missing information on the variables of interest are excluded.

Job satisfaction refers to the workers' level of satisfaction with their present job overall and assigns values between one, for '*not satisfied at all*', and seven, for '*completely satisfied*'. Following Freeman (1978), this categorical variable is standardised through a z-score transformation so that it measures the number of standard deviations between a given response and the mean. The earnings variable in the estimated job satisfaction equations is the natural logarithm of the nominal gross

⁵ Fixed-effects estimates are also used. The results turned out to be similar to those based on random effects estimation. However, in the case of fixed effects the results would only be identified by those individuals in the sample who switch between career and non-career jobs. The authors are grateful to an anonymous referee of this journal for this point.

average hourly wage, adjusted for overtime⁶. The tenure variable is the years that the respondent has spent with his current employer. Thus, there may be more than one job change within the particular firm, which may reflect promotions on the job ladder⁷.

In line with the earlier discussion, career status is defined as reflecting the employment status of an individual in full-time employment, who expects his or her pay to rise every year by moving to the next point on the scale (annual pay increments) and who also enjoys opportunities for promotion in their current job. Hence, the career sector is defined as the sector where wages are determined by incremental scales and workers have opportunities for promotion in their current employment.

Summary statistics are reported in *Table 1*. The sample contains 16,809 individuals one third of whom are in the career paths as defined above. The descriptive statistics on job satisfaction reveal that workers with job opportunities report higher job satisfaction compared to those without. Employer-tenure is longer in the latter case and hourly pay on average is higher in the former group of individuals. 80 percent of those in the career sector are represented by a trade union, 60 percent are union members and 55 percent have received training since the September preceding the interview. The figures for those with no career prospects are significantly lower. Finally, career workers also appear to have a more active labour market history, since on average they report as having spent less time in unemployment or out of the labour market (not as students), compared to their non-career counterparts.

⁶ Based on the usual weekly pay and the usual paid hours in a week, adjusted for overtime paid.

⁷ Restricting the measure to the job level only may evidently mask the effect of job-to-job career development within the firm on job satisfaction.

5 Job Satisfaction, Tenure and Earnings: Empirical Results

Table 2 reports the results of the tentative job satisfaction model, which does not make a distinction between career and non-career paths. The explanatory variables vector at the right-hand side of the job satisfaction regression includes individual and workplace related characteristics and a number of other control variables. In particular, gender, marital status, age (and age square), health status, educational qualifications, socio-economic group and skills are included. The workplace characteristics included in the model are whether the individual is employed in the private/public sector, the industrial sector, union coverage and membership, establishment size, individual's preference over working hours and whether a pension scheme is offered by the employer. These factors are assumed to influence individuals' job satisfaction. In addition to the above variables, a variable capturing the existence of career prospects in the current job and a variable measuring the employer-tenure and its square, to capture any non-linear effects, are included in the job satisfaction equation. *A priori* one can expect that career prospects in current employment would have a positive impact on job satisfaction and that the current employment would be more valuable to the worker as soon as he or she acquires some level of seniority. Finally, regional dummies and a time trend are also included.

The job satisfaction model is estimated using a random effect panel estimator. In the estimated equation, career opportunities are treated as an exogenous variable. However, one could argue that high ability individuals are likely to have career advancements in their job and may also be more satisfied with their jobs.

Furthermore, workers with higher perceived job satisfaction may be more likely to be offered career development opportunities by their employers, since high job satisfaction leads to higher productivity. In order to assess the endogeneity of career status variable in the job satisfaction equation, the instrumental variables⁸ approach is sought and endogeneity tests⁹ are performed¹⁰. The tests do not provide support to the endogeneity argument and do not justify the use of the instrumental variables approach. Therefore, only the GLS estimates of the job satisfaction model are reported.

Overall, the results appear to be in line with both the *a priori* expectations and other empirical studies on the job satisfaction issue¹¹. Importantly, career prospects show a significant positive correlation with job satisfaction. Individuals with promotion opportunities are estimated to have significantly higher levels of job satisfaction compared to employees in jobs with less promising career prospects, in line with the results reported by Clark (1997). Also, the estimated effect of employer-tenure on job satisfaction reveals a U-shaped relationship. It appears that job satisfaction declines in tenure up to a particular level of tenure and then gradually increases as individuals with longer seniority become increasingly satisfied with their job. Jovanovic (1979) puts forward one explanation for this U-shape pattern. He argues that this wage structure is likely to act, if imperfectly, as a self-selection device for selecting the most suitable employees thus achieving a high job match-specific productivity. He

⁸ The validity of the instrumental variables employed (percentage of years the respondent has spent unemployed or out of the labour market and training) was examined using a joint significance F-test and the overidentification Sargan test.

⁹ Durbin-Wu-Hausman and Wu-Hausman tests.

¹⁰ The results are available from the authors on request.

¹¹ For economy of space reasons, the discussion focuses only on the main variables of interest.

points out that the optimal structure for the firms' wage policy is a wage which is an increasing function of the worker's experience in the firm. Within this framework, Viscusi (1980) and Okun (1981) argue that in such firms workers learn about the properties of the job by an adaptive process. Thus, initially during the learning period job satisfaction lowers but increases again when workers become accustomed with the intrinsic specifics of the job. Finally, wages are found to have a positive effect on job satisfaction, suggesting that the utility individuals derive from work depends on the absolute consumption level in all periods of the individual's lifetime.

6 Job Satisfaction and Career Profiles

The contribution of this paper to the job satisfaction literature focuses on the employer-tenure effect on job satisfaction profiles. The estimates in the previous section clearly suggest that job satisfaction is U-shaped in accumulated tenure, and that workers with career development opportunities experience higher levels of job satisfaction. In this section, the link between tenure and job satisfaction is further explored. In particular, whether this relationship is contingent on career prospects is examined. Methodologically, this involves estimating separate job satisfaction equations for those individuals who have career prospects and for those who do not enjoy such career opportunities¹². The main focus of the analysis is to examine the seniority-job satisfaction profiles stratified by career status. One would expect that tenure will have a positive effect on the job satisfaction of those who are in career

¹² The job satisfaction distribution between the career and non-career sectors is found to be statistically different, based on the non parametric Kolmogorov-Smirnov test.

opportunities paths, while the tenure-job satisfaction profile will be flat in jobs that do not offer career prospects.

6.1 Who are those with Career Prospects in Current Employment?

The vector of independent variables in the career choice equation (2) includes all the variables used in the job satisfaction models (1). However, identification requires that at least one additional independent variable is included in (2), which is a reduced form equation. This variable should affect the probability of someone having career opportunities but it should not be correlated with job satisfaction. In this study two variables are used to identify the reduced equation form: (a) the years an individual has been either unemployed or out of the labour market as a percentage of his or her age, this variable refers to the labour market history of the individual, and (b) a variable capturing whether or not the respondent had any training since the September prior to the interview¹³. The inclusion of these variables in the choice equation is rationalised as follows: since past labour market history can act as a signal to the employer of a worker's unobserved ability, one would expect that people with longer and less interrupted employment spells in the past should be able to command a current job with higher promotion opportunities. The training variable captures job related training and other kinds of training. In the former case, the variable captures the view proposed by Okun (1981) namely that job related training reflects job commitment to the current employment relationship by both the employer and the

¹³ In the first seven waves of BHPS, respondents are asked if they receive any job related training and also if they have had any other training since the September before the interview. From the eighth wave, questions change and people are asked if they have taken any training in the corresponding period of time.

employee. In addition, it may reflect that the employer values more highly the ability of the workers who are singled out for training compared to the remainder. In the latter case, training that it is not necessarily job related reflects the individual's drive and determination for career advancement, since there are always costs involved in investment in training. A common way to formally examine the explanatory power of the chosen instruments in the selection equation (first requirement) is to perform an F-test on their joint significance in the estimated model. If the F-statistic is below ten, then the instruments have little explanatory power. The obtained F-statistic ($F(2, 16768) = 43.17$) clearly supports the choice of instruments.

However, the problem with the selectivity correction models is that the identifying restrictions always appear to be *ad hoc*. As a test of whether the above variables should be included in the job satisfaction equation (second requirement), the unrestricted and restricted models of job satisfaction are estimated and a likelihood-ratio test is used to test for the appropriateness of the identifying restrictions. The test (LR $\text{Chi}^2(2) = 3.66$) provides support for the chosen excluding restrictions as statistically they do not appear to be jointly significant in the job satisfaction equation.

As the probability of someone being in a job with career prospects is not the focus of this paper, the results are briefly discussed below and reported in **Table 3** for the sake of completeness. Those in the private sector appear to have lower career prospects than those employed in the public sector. Bigger firms (with two hundred employees or more) on average offer higher career opportunities than smaller establishments. Initially tenure negatively affects the probability of a worker being employed in a career job, but this effect reverses after individuals have spent some time with their

employer. The probability of someone enjoying career prospects increases with his or her pay. This is also true for union members, for those employed in a firm covered by a trade union, for workers whose employer offers a pension scheme, and for young employees. People employed in public administration, education, research and development as well as agriculture, energy and water supply industries appear to have a higher probability to be in a job which offers career prospects compared to those who are not employed in these sectors. As one would expect, this also appears to be the case for non-manual workers, professionals and managers, compared to manual workers. Finally, individuals who have recently received training have a higher probability of being employed in jobs with career prospects compared to workers who have not had any training in the past few months.

6.2 Job Satisfaction in a Two-Tier Labour Market

Table 4 (first two columns) reports the estimation results of the job satisfaction model for those with job career prospects and for those without. To correct for possible selection bias the inverse Mills ratios are obtained following Lee's procedure (1978) which are then added as additional regressors in the job satisfaction equation. For space considerations, only the coefficients of the regressors of interest are presented¹⁴.

The estimates of the seniority profiles on job satisfaction suggest a U-shaped relationship for both cases of employment. In order to illustrate the tenure-job satisfaction profiles for the career and non-career sector, the predicted level of job satisfaction (z-score transformation) evaluated at the mean of all the other variables is

¹⁴ The remaining results are available from the authors on request.

reported in *Table 4* and the tenure-job satisfaction profiles for career and non-career employees are plotted in *Figure 1*. The graph illustrates that for non-career workers, the accumulated employer tenure has a rather modest effect on job satisfaction as the tenure-job satisfaction profile turns out to be almost flat. On the contrary, tenure plays a central role in shaping job satisfaction levels when individuals enjoy career prospects¹⁵. In line with the earlier discussion, the tenure-job satisfaction profile initially declines during the first years of the employment, but it starts to increase as soon as individuals pass a seniority threshold¹⁶.

All in all, not all employment relationships which endure the initial trial period are followed by an improvement of job satisfaction. For individuals who are offered career development opportunities, job satisfaction gradually increases as the future prospects in the present employment become more attractive. However, for those workers who are not employed in career jobs, job satisfaction does not rise with tenure, since accumulated tenure is not translated into promotion and pay-rise prospects.

¹⁵ A Kolmogorov-Smirnov test lends further support to the visual evidence, suggesting that the distribution of (predicted) job satisfaction in the two sectors is statistically different.

¹⁶ This seniority threshold (for individuals in career paths) appears to be, on average, around 15 years, which is in line with the literature findings on tenure-earnings profiles. Theodossiou (1996) estimates that the tenure-earnings profiles for employees in promotion jobs reach the maximum after roughly 10 years of tenure, while Theodossiou and Williams (1998) report similar results for the well-trained employees (who according to *Table 3* have higher probability of career prospects in their current employment). It should be noted that these plots are derived by estimating job satisfaction at the mean of all other regressors. This implies that the tenure-job satisfaction profiles may actually pick up sooner for the individual worker.

Regarding the pecuniary aspect of the job, wages appear to have an equally important role on individuals' perceived level of job satisfaction, regardless of whether or not workers have opportunities for career advancements. Finally, there is some evidence of negative selection in the non-career sector, suggesting that the individual and workplace characteristics that are more prevalent in the non-career sector are negatively associated with individual's job satisfaction.

6.3 Tenure-job satisfaction profiles and career status

Although the pooled sample estimates highlight the importance career prospects have on the tenure-job satisfaction profiles, they may conceal considerable heterogeneity between different groups of workers. Therefore in order to further explore the link between employer-tenure and job satisfaction, the job satisfaction equations for the career and non-career sector are re-estimated, after stratifying the data by gender and age. Women's labour market participation and choice of jobs is likely to differ from that of men due to childbearing and the central role of women in the household. Hence, there may be gender differences in the tenure-job satisfaction profiles that the pooled estimates fail to reveal. Similarly, individuals who are in different stages of their working life may exhibit different tenure-job satisfaction paths, due to the different priorities workers have at different stages of life. A junior worker who is not satisfied by his or her job may decide to stay longer with an employer, despite poor working conditions (long working hours, job stress etc.) in order to gain working experience and accumulate labour market skills. However, a senior worker who receives low job satisfaction may seek alternative employment, thus exhibiting a shorter employer-tenure-job satisfaction profiles.

The results from the estimated job satisfaction model for career and non-career workers by gender and age group are presented in *Table 4* (columns 3-6). For male workers, tenure-job satisfaction relationship appears to be U-shaped only for those in the career sector. The tenure effect is found to be statistically insignificant for men with no career prospects. The predicted tenure-job satisfaction profile evaluated at the means of the other variables is plotted in *Figure 2*. It shows that male workers with career advancement opportunities appear to receive higher job satisfaction at any level of employer-tenure, compared to their counterparts with no career prospects. The tenure-job satisfaction profile of the former exhibits a U-shaped relationship, while the profile for the latter group is relatively flat.

The wage level is only found to play an important role in determining the job satisfaction of those employed in jobs without career opportunities. This may imply that workers who do not expect any career improvement attach much more weight to their current wage, compared to their career counterparts who are offered opportunities for promotion and pay-rise prospects. Finally, there is evidence of negative selection in the non-career sector suggesting that some worker and workplace characteristics which are more common in the non-career sector are also accountable for some of the dissatisfaction that individuals experience with their work.

Regarding the female workers, the estimated tenure-job satisfaction profiles are in line with the previous findings. A U-shaped relationship is observed in both the career and non-career sector. Importantly, for the non-career sector the profile is flatter and

lower, at least for part of the tenure distribution, than the tenure profile in the career sector (*Figure 3*). Wages are found to have a positive and significant effect only for female employees with career prospects. Finally, there is no evidence of selection bias in either the sectors.

In order to explore whether the link between tenure and job satisfaction in the career and non-career jobs depends on the stage that the individuals are in their working life cycle, the sample is stratified by age. In particular, the job satisfaction equations are estimated separately for individuals aged 18-39, and those aged 40-60¹⁷. The tenure profiles of workers between 18-39 years of age are similar to the previous findings (*Table 4*, columns 7-8). The results reveal U-shaped tenure-job satisfaction profiles. Interestingly, career sector workers have a higher profile than the non-career sector workers (*Figure 4*). Wages have a positive effect on job satisfaction in both sectors but the effect in the career sector is much stronger compared to the one in the non-career sector. Finally, the inverse Mills ratio is found insignificant in both sectors.

For the 40-60 age group, the estimated job satisfaction model reveals that the tenure effect on job satisfaction is statistically insignificant in both the career and non-career sectors. The tenure-job satisfaction profiles (*Figure 5*) appear to be similar to the earlier reported profiles. They exhibit a U-shaped relationship and the profile for the career sector turns out to be higher than that of the non-career sector. Wages appear to play a statistically insignificant role in determining an individual's job satisfaction for

¹⁷ The authors also considered a finer stratification of the sample, but the results were fairly similar to those presented here, thus not included in the paper.

both the sectors. Finally, there is some evidence of negative selection in the non-career sector. The estimated inverse Mills ratio shows a significant negative effect.

7 Conclusions

The job satisfaction literature has highlighted the effect of various socio-demographic, economic and workplace characteristics on job satisfaction. One prominent finding in this literature is the important and significant effect of job security on job satisfaction. This paper further explores this avenue and investigates the relationship between career profile, job tenure and job satisfaction. In particular, this study makes a distinction between jobs with career development opportunities and jobs without such prospects and explores the tenure-job satisfaction profiles in this two-tier labour market framework. Individuals in jobs with career prospects are found to enjoy higher levels of job satisfaction compared with the remainder. Furthermore, the overall effect of employer-tenure on job satisfaction is determined by two distinct paths. Employees in jobs where no career prospects are offered do not appear to enjoy higher levels of job satisfaction with accumulated tenure. The results imply that the lack of career development opportunities in a worker's current employment acts as a disincentive to him/her spending an extra year with his/her employer since he/she does not gain any additional utility in doing so. The tenure-job satisfaction profile is different in the case of individuals in jobs with career prospects. The findings suggest a U-shaped relationship between tenure and job satisfaction. Initially workers experience a declining utility from work. However, as the employment relationship matures and career development opportunities become available to the workers, they progressively gain higher levels of job satisfaction. Interestingly, this pattern also prevails when the

sample is disaggregated by gender and age. Finally, the results reveal a negative selection process in the non-career sector; the worker and firm characteristics prevalent in the non-career sector are associated with the individual's job dissatisfaction.

These are interesting findings in terms of human resource management policies. Job satisfaction is strongly related to the worker's productivity (Clegg (1983), Eagly and Chaiken (1993)). Hence, when one investigates and assesses productivity-enhancing job designs it is essential to take into account the costs of job dissatisfaction. This study suggests that although non-career employment paths may offer some flexibility to the firm in adjusting the size of the workforce on demand, this strategy has adverse effects on worker's job satisfaction and hence it may hinder productivity.

Table 1: Descriptive Statistics (BHPS: 1991-2004)

Variables	All	No-Career	Career	
<u>Individual work-related characteristics</u>				
Job satisfaction	0.010	-0.038	0.122	z-score transformation of job satisfaction score (high values: high levels of job satisfaction)
Employer-tenure	0.844	0.883	0.753	Employer-tenure measured in decades
Hourly pay (log)	1.986	1.951	2.069	Log hourly pay adjusted for overtime
Training	0.410	0.351	0.550	1 if respondent had any training since September prior to the interview, 0 otherwise
<u>Preference over working hours</u>				
Fewer	0.415	0.427	0.385	1 if respondent prefers to work fewer hours, 0 otherwise
Same	0.541	0.528	0.571	1 if respondent prefers to work the same number of hours, 0 otherwise
More	0.044	0.45	0.44	1 if respondent prefers to work more hours, 0 otherwise
<u>Other individual characteristics</u>				
Male	0.602	0.615	0.570	1 if respondent is male, 0 otherwise
Couple	0.761	0.770	0.739	1 if respondent is married or cohabits, 0 otherwise
% years non-employed	0.042	0.044	0.037	percentage of years respondent has spent unemployed or out of the labour market
Healthy	0.523	0.515	0.542	1 if respondent had no health problems over the last 12 months, 0 otherwise
Age	40.152	40.798	38.636	Age of respondent at the time of interview
<u>Qualification</u>				
Degree	0.431	0.397	0.511	1 if respondent has a first or higher degree, higher certificate, nursing or teaching qualifications, 0 otherwise
A-level	0.123	0.123	0.124	1 if respondent has A-level, 0 otherwise
Other qualifications	0.315	0.333	0.275	1 if respondent has O-level, CSE, apprenticeship, commercial or other qualification, 0 otherwise
No qualifications	0.131	0.147	0.90	1 if respondent has no qualification, 0 otherwise
<u>Socio-economic group</u>				
Managers & Professionals	0.281	0.277	0.290	1 if respondent belongs to this socio-economic group, 0 otherwise
Intermediate non-manuals	0.189	0.155	0.266	--/
Rest non-manual & personal service wrks.	0.205	0.195	0.230	--/
Foreman & skilled wrks.	0.202	0.233	0.127	--/
Low manual	0.123	0.140	0.087	--/

<u>Industry sector</u>				
Agriculture; energy & water supplies	0.041	0.036	0.052	1 if respondent works in this industry sector, 0 otherwise
Extraction & manufacturing	0.264	0.311	0.153	--/
Construction, Transport & communication	0.103	0.107	0.095	--/
Distribution, hotels & catering	0.125	0.144	0.081	--/
Banking, & finance	0.127	0.127	0.126	--/
Other services	0.340	0.275	0.493	--/
<u>Establishment size</u>				
Less than 25 employees	0.271	0.308	0.188	1 if establishment size is of this range, 0 otherwise
25 or more	0.006	0.004	0.009	--/
25-49	0.130	0.136	0.115	--/
50-99	0.128	0.123	0.141	--/
100-199	0.119	0.118	0.119	--/
200-499	0.150	0.143	0.167	--/
500-999	0.084	0.076	0.101	--/
1000 or more	0.112	0.092	0.160	--/
<u>Other workplace characteristics</u>				
Career opportunities	0.299			1 if respondent has promotion opportunities in current job and his/her pay includes annual increments, 0 otherwise
Private sector	0.657	0.736	0.472	1 if firm is in the private sector
Pension scheme	0.804	0.752	0.925	1 if employer runs a pension scheme
<u>Trade unions</u>				
Union coverage	0.596	0.510	0.799	1 if recognised trade union present in workplace, 0 otherwise
Union membership	0.445	0.374	0.611	1 if respondent is member of workplace trade union, 0 otherwise
<u>Region</u>				
d_South	0.369	0.361	0.388	1 if respondent lives in this region, 0 otherwise
d_Midlands	0.216	0.227	0.189	--/
d_North	0.277	0.274	0.283	--/
d_Wales	0.051	0.054	0.045	--/
d_Scotland	0.087	0.084	0.095	--/
<u>Time trend</u>				
Wave	5.612	5.903	4.927	a time trend taking values from 1 to 7, corresponding to BHPS waves
<u>Sample size</u>				
	16809	11788	5021	

Table 2: Job-Satisfaction (basic estimates)

<u>Individual work-related characteristics</u>	
Tenure	-0.262* (0.040)
Tenure (square)	0.075* (0.013)
Hourly pay (log)	0.137* (0.026)
<u>Preference over working hours</u>	
Fewer hours	-0.079** (0.035)
Same hours	0.181* (0.034)
<u>Other individual characteristics</u>	
Male	-0.201* (0.031)
Couple	-0.026 (0.024)
Healthy	0.085* (0.016)
Age	-0.006 (0.008)
Age (square)	0.000*** (0.000)
<u>Qualification</u>	
Degree	-0.207* (0.043)
A-level	-0.190* (0.050)
Other qualifications	-0.078*** (0.042)
<u>Socio-economic group</u>	
Professionals & managers	0.134* (0.037)
Intermediate non-manual	0.104* (0.037)
Rest non-manual & personal service wrks	0.079** (0.037)
Foreman & skilled wrks	0.071** (0.032)
<u>Industry sector</u>	
Agriculture etc, energy & water supplies	-0.086 (0.059)
Extraction & manufacturing	-0.094** (0.039)
Construction, transport & communication	-0.061 (0.042)
Distribution, hotels & catering	-0.060 (0.041)

Banking, finance & insurance	-0.156*
	(0.040)
<u>Establishment size</u>	
25 or more employees	0.054
	(0.089)
25-49 employees	-0.054**
	(0.027)
50-99 employees	-0.034
	(0.029)
100-199 employees	-0.069**
	(0.030)
200-499 employees	-0.103*
	(0.029)
500-999 employees	-0.114*
	(0.034)
1000 or more employees	-0.080**
	(0.034)
<u>Other workplace characteristics</u>	
Career Opportunities	0.153*
	(0.018)
Pension scheme	-0.008
	(0.027)
Private sector	0.000
	(0.035)
<u>Trade unions</u>	
Union coverage	-0.054***
	(0.029)
Union membership	-0.077*
	(0.028)
<u>Region</u>	
Midlands	0.114*
	(0.036)
North	0.060***
	(0.034)
Wales	0.126***
	(0.064)
Scotland	-0.064
	(0.050)
<u>Time trend</u>	
Wave	-0.025*
	(0.003)
Constant	0.086
	(0.156)
R-square	0.073
Chi-square	887.08

Note: (1) Standard errors in parentheses

(2)*** significant at 10%; ** significant at 5%; * significant at 1%

Table 3: Job Opportunities (Selection Model)

Individual work-related characteristics

Tenure	-0.553*
	(0.101)
Tenure (square)	0.161*
	(0.033)
Hourly pay (log)	0.251*
	(0.071)
Training	0.256*
	(0.036)

Preference over working hours

Fewer hours	-0.046
	(0.091)
Same hours	0.040
	(0.087)

Other individual characteristics

Male	0.016
	(0.084)
Couple	-0.072
	(0.061)
Healthy	0.006
	(0.041)
% of years non-employed	-0.342
	(0.552)
Age	-0.094*
	(0.020)
Age (square)	0.001*
	(0.000)

Qualifications

Degree	0.080
	(0.114)
A-level	0.022
	(0.131)
Other qualifications	-0.020
	(0.114)

<u>Socio-economic group</u>	
Professionals & managers	0.355* (0.096)
Intermediate non-manual	0.479* (0.094)
Rest non-manual & personal service wrks	0.407* (0.096)
Foreman & skilled wrks	0.098 (0.083)
<u>Industry sector</u>	
Agriculture etc, energy & water supplies	0.241*** (0.144)
Extraction & manufacturing	-0.456* (0.102)
Construction, transport & communication	-0.189*** (0.106)
Distribution, hotels & catering	-0.215*** (0.110)
Banking, finance & insurance	-0.150 (0.102)
<u>Establishment size</u>	
25 or more employees	0.522** (0.225)
25-49 employees	0.089 (0.070)
50-99 employees	0.221* (0.074)
100-199 employees	0.234* (0.077)
200-499 employees	0.331* (0.074)
500-999 employees	0.433* (0.084)
1000 or more employees	0.426* (0.083)
<u>Other workplace characteristics</u>	
Private sector	-0.429* (0.086)
Pension scheme	0.598* (0.080)
<u>Trade unions</u>	
Union coverage	0.617* (0.073)
Union membership	0.214* (0.067)

Region

Midlands	-0.170*** (0.094)
North	-0.017 (0.087)
Wales	-0.324*** (0.170)
Scotland	-0.040 (0.127)

Time trend

Wave	-0.050* (0.008)
Constant	0.239 (0.400)

Log-Likelihood	-6894.27
Chi-square	1078.90

Note: (1) Standard errors in parentheses

(2) *** significant at 10%; ** significant at 5%; * significant at 1%

Table 4: Job Satisfaction & Career Opportunities in Workplace

	<i>All</i>		<i>Male</i>		<i>Female</i>		<i>Age (18-39)</i>		<i>Age (40-60)</i>	
	<i>Career</i>	<i>No Career</i>	<i>Career</i>	<i>No Career</i>	<i>Career</i>	<i>No Career</i>	<i>Career</i>	<i>No Career</i>	<i>Career</i>	<i>No Career</i>
Tenure	-0.327*	-0.176*	-0.202***	-0.110	-0.562*	-0.240**	-0.823*	-0.593*	-0.142	-0.066
	(0.082)	(0.061)	(0.104)	(0.072)	(0.146)	(0.116)	(0.171)	(0.132)	(0.105)	(0.072)
Tenure (square)	0.102*	0.051*	0.069**	0.029	0.164*	0.072***	0.368*	0.262*	0.061***	0.030
	(0.027)	(0.019)	(0.035)	(0.022)	(0.048)	(0.038)	(0.084)	(0.058)	(0.031)	(0.021)
Hourly pay (log)	0.119**	0.121*	0.095	0.144*	0.188**	0.088	0.225*	0.212*	0.014	0.048
	(0.054)	(0.035)	(0.069)	(0.043)	(0.086)	(0.062)	(0.067)	(0.050)	(0.079)	(0.046)
Inv. Mills ratio	0.027	-0.144***	-0.118	-0.310*	0.278	-0.025	0.142	0.060	-0.229	-0.215**
	(0.120)	(0.082)	(0.154)	(0.101)	(0.189)	(0.137)	(0.154)	(0.108)	(0.156)	(0.097)
R-sqr	0.0704	0.0771	0.0745	0.0655	0.1071	0.1031	0.0689	0.1001	0.0821	0.0700
Chi-sqr	296.77	558.49	166.05	299.73	180.98	293.84	170.55	363.32	181.19	277.48
Sample	5021	11788	2864	7249	2157	4539	2636	5340	2385	6448

Note: (1) Other controls: gender, marital status, age and age square (only on whole sample and when stratifying by gender), health status, educational qualifications, socio-economic group, skills, private/public sector, industrial sector, union coverage and membership, establishment size, individual's preference over working hours, pension scheme offered by the employer, regional dummies and a time trend.

(2) Standard errors in parentheses

(3) *** significant at 10%; ** significant at 5%; * significant at 1%

Figure 1

Employer Tenure-Job Satisfaction Profiles

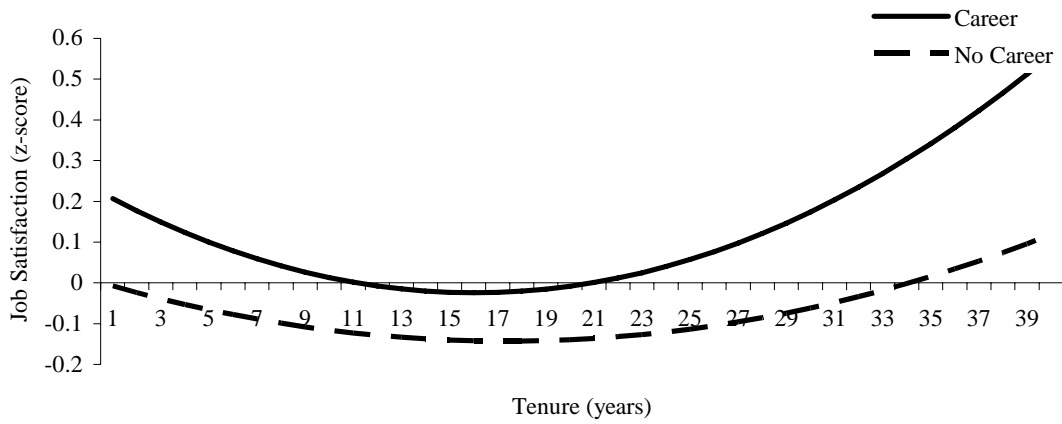


Figure 2

Employer Tenure-Job Satisfaction Profiles

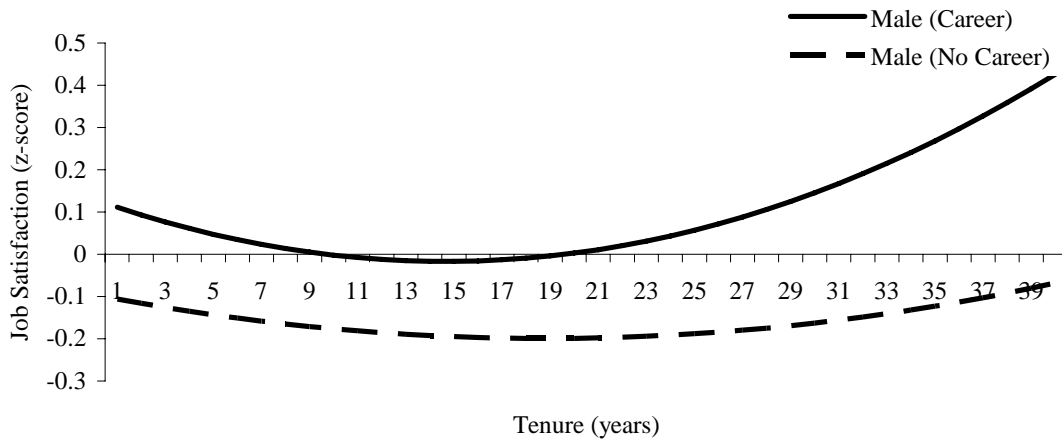


Figure 3

Employer Tenure-Job Satisfaction Profiles

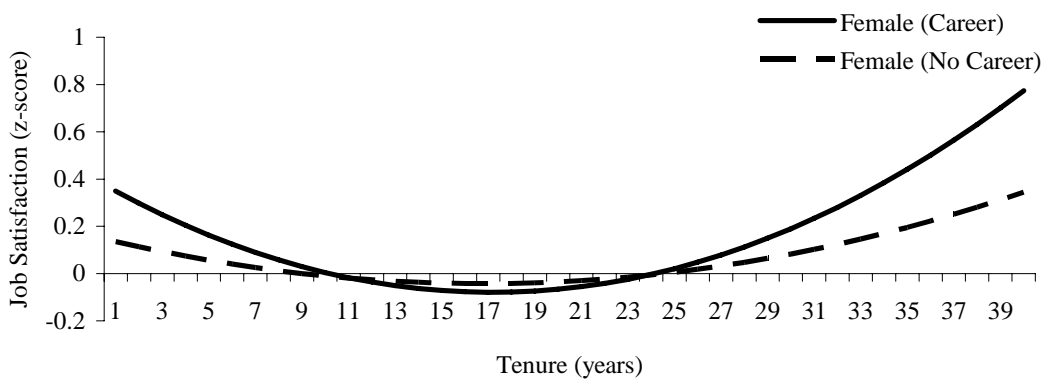


Figure 4

Employer Tenure-Job Satisfaction Profiles

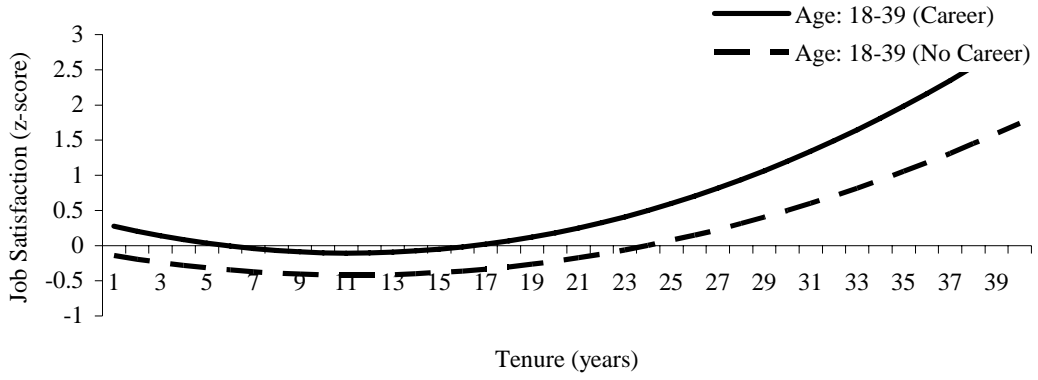
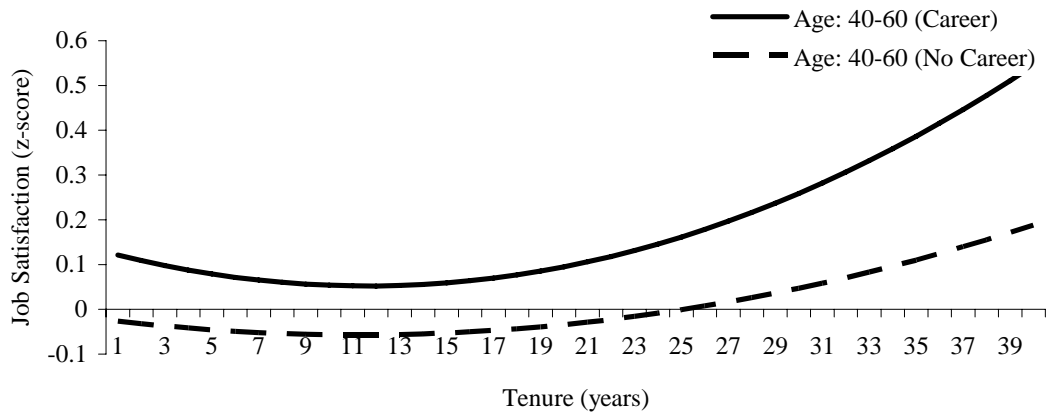


Figure 5

Employer Tenure-Job Satisfaction Profiles



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