The Search for Success: Do the Unemployed find Stable Employment?

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28/02/00

Abstract: This paper uses an independent competing risks framework to model job tenure, with previous labour market status and the duration of the preceding unemployment spell as explanatory variables. We find that jobs that follow an unemployment spell have shorter mean duration than other jobs. Less than one half of jobs that follow unemployment last for twelve months. Multivariate results suggest that an unemployment spell has a severe penalty on subsequent job tenure. However, men and women who spend more time unemployed and searching for work are rewarded with a better worker-firm match in their subsequent job.

JEL classification: J11, J20, J62, C33
Keywords: Job Tenure, Job Mobility, Unemployment

Acknowledgements: Thanks to Alison Booth and Stephen Jenkins for helpful comments on an earlier draft of this paper. Financial support from the ESRC, University of Essex and Leverhulme Trust is gratefully acknowledged. This research derives from an Institute for Labour Research programme on "Labour Market Dynamics in a Changing Environment" funded by the Leverhulme Trust.

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Non-technical Summary

The aim of this research is to investigate the type of work the unemployed enter, and how an experience of unemployment affects an individual's future job tenure. What proportion of the unemployed, for example, enter full-time employment, part-time employment or self-employment? For how many is the subsequent employment spell merely a stopgap job? For how long do they remain in this employment, and do they re-enter unemployment? Does one unemployment spell initiate a period of high labour market mobility? Answers to such questions provide important information on how an unemployment experience affects an individual's future employment career.

This paper studies job tenure in Britain in the 1990s with particular emphasis on jobs following an unemployment spell. This allows the investigation of the impact of unemployment on subsequent job tenure. We use an independent competing risks framework with previous labour market status and the duration of the preceding unemployment spell as explanatory variables. Two different specifications are considered. The first uses reasons for job termination as the competing risks, and the second uses subsequent employment status. Allowing for a fully flexible baseline hazard rate yields more robust results than those obtained from parametric approaches, and provides information on the impact of unemployment experiences on subsequent job tenure. We also explore age and gender differences in job tenure in some detail. Individual level data from the British Household Panel Survey (BHPS) are used, which provide accurate information on employment and unemployment spell duration for men and women in the 1990s. We are unable to estimate structural models of job tenure as wage information on all jobs held over the period is not available, and instead we present reduced form specifications. The important distinguishing feature of this work is that we focus particularly on job tenure following unemployment to investigate whether the unemployed find work that is stable and sustained.

Our results show that more women than men enter part-time work from unemployment. Temporary jobs and layoffs account for the termination of the largest proportion of jobs that follow unemployment among men, while quits explain a greater proportion among women. Temporary jobs are the main cause of short job tenure, implying that unemployed workers accept short-term temporary jobs as a route back into work. The relatively high exit rate through layoffs among men suggests that the unemployed also accept poor quality jobs that have high destruction rates. Examining subsequent labour market states supports this, as approaching one half of men who leave a temporary job or who are laid off re-enter unemployment compared with one third of those who quit. Twenty percent of men and women who find work following a spell of unemployment re-enter unemployment within twelve months.

Multivariate analysis shows that previous labour market status is important in determining the probability of upward career mobility, although the duration of the previous unemployment spell has no effect. Individuals who enter a job from unemployment are four times more likely to be laid off from their subsequent job, and are three times more likely to (re)enter unemployment than those entering from another job. Therefore unemployment has a severe penalty on subsequent job tenure. However, the duration of the previous unemployment spell reduces the exit rate from the subsequent job. This suggests that men and women who spend more time unemployed and searching for work are rewarded with a better worker-firm match. They are less likely to experience a firm initiated separation (layoff) or a worker initiated

separation (quit) in their subsequent job. Further, we find that the duration of the preceding unemployment spell has a negative and significant impact on the probability of the subsequent job ending in another spell of unemployment for both men and women. Age, marital status, employment status of spouse, ethnicity, education, industry and firm size emerge as important determinants of job tenure.

Investigating age differentials shows that the duration of the unemployment spell reduces the probability of leaving the subsequent job more for men and women aged under 25 than for more mature individuals. This suggests that unemployment has less effect on future labour market behaviour for younger workers. Further investigation of gender differences suggests that women are more likely to quit from a job and less likely to be laid off than men. Women are significantly more likely to leave the labour market than men, although this differential is reduced if women enter a job from unemployment or economic inactivity. The probability of leaving the labour market falls with the duration of the preceding unemployment spell for men but not for women.

Introduction

A concern of many Western governments in recent years has been persistently high rates of unemployment, and particularly long-term unemployment, resulting in a wide range of policies targeted at the unemployed in market economies worldwide. This concern arises from the loss of output caused by individuals out of work, the loss of income and skills which may accompany jobless periods, and the additional costs to government expenditure.[1] A major aim of the Government is to reduce the social security bill by encouraging the unemployed to find jobs through significant new initiatives such as the Welfare to Work programme and the New Deal.[2] In order to be successful, any policy with such objectives requires those finding work to remain in employment for some time. The social security bill will not be permanently reduced if those moving into work find themselves again unemployed a few months later.

The aim of this research is to investigate the type of work the unemployed enter, and how an experience of unemployment affects an individual's future job tenure. What proportion, for example, enter full-time employment, part-time employment or self-employment? For how many is the subsequent employment spell merely a stopgap job? For how long do they remain in this employment, and do they re-enter unemployment? Does one unemployment spell initiate a period of high labour market mobility? The answers to questions such as these will provide important information on how an unemployment experience affects an individual's future employment career.

Unemployment persistence and state dependence in unemployment have received much attention in the labour economics literature (see for example Arulampalam *et al*, 2000; Narendranathan and Elias, 1993, Heckman and Borjas, 1980). There is little doubt that certain individuals are prone to recurrent unemployment, be it due to state dependence or

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[1] In 1995 Unemployment Benefit payments accounted for more than £1 in every £100 spent by the Government on social security in Britain (ONS, 1999, Table 10.21).

[2] New Deal aims to improve the long-term job prospects of the most disadvantaged benefit recipients in order to achieve higher levels of overall employment. It covers four main groups; those aged 18-24 who have been claiming Jobseeker's Allowance for six months or more, those aged 25 and over who have been claiming Jobseeker's Allowance for two years or more, lone parents whose youngest child has reached school age, and people with disabilities (Wood, 1998).

unobserved heterogeneity. Arulampalam *et al* (2000) conclude that less than one quarter of observed persistence in unemployment among young men is accounted for by state dependence, compared with 40% for mature men. This implies that, for mature men in particular, there is a causal link between past and current unemployment experiences. Reasons for such a link include loss of work experience or human capital in unemployment, or unemployment being used by employers as a signal of low productivity (Phelps, 1972; Lockwood, 1991; Pissarides, 1992; Blanchard and Diamond, 1994). Pissarides (1994) suggests that the unemployed are more likely to enter 'bad' jobs, which are characterised by low start up costs, low wages and low productivity, and which suffer from high rates of job destruction.

Hazard rates from unemployment have also been studied, where the effects of individual heterogeneity and unemployment insurance schemes on unemployment duration have attracted particular interest (Narendranathan and Stewart, 1993; Arulampalam and Stewart, 1995; Dolton and O'Neill, 1996; Böheim and Taylor, 2000). Age, health, housing tenure and labour demand consistently emerge as important determinants of unemployment duration. However, the effect of unemployment duration on future work patterns and subsequent job tenure are relatively under-studied.

Recent work has shown that job displacement involves a fall in subsequent earnings. Gregg and Wadsworth (1997), for example, show that wages in jobs accepted by those out of work have fallen relative to others in the labour market. Gregg, Knight and Wadsworth (1997) find that job loss results in wage losses of 10-12% on average, but result in much larger losses for older workers and the less educated. Nickell *et al* (1999) report a strong tendency for the costs of unemployment in terms of wage losses to have increased in recent years for all men except those in the lowest skill group. The largest losses are found in the highest skill groups. Similarly, Gregory and Jukes (1997) show that the duration of an unemployment spell has a long-term impact on earnings, particularly for older men and those who had higher than average earnings beforehand. There are a number of explanations for such wage loss including the loss of firm specific capital, the loss of wage premia, and erosion of human capital while unemployed. If layoffs are an indication of ability, then a fall in wages is to be expected (Gibbons and Katz, 1991). Evidence from the U.S. suggests that some losses are recouped after two years, although some differential persists perhaps due to repeated job

losses (Ruhm, 1991; Jacobson, LaLonde and Sullivan, 1993, Farber, 1993, 1997; Huff Stevens, 1997; Gustafson, 1998).

Evidence suggests that the 1990s in Britain have been a time of relatively high job turnover and shorter job tenure (Gregg, Knight and Wadsworth, 1997; Booth, Francesconi and Garcia-Serrano, 1999). New entrants in particular appear to have experienced higher levels of job mobility and a decline in job duration (Gregg and Wadsworth, 1995; Booth, Francesconi and Garcia-Serrano, 1999). This could have major implications on the supply and demand of work-related training (Arulampalam and Booth, 1998), reducing the average skill levels of the workforce. Perhaps more importantly, high job turnover increases the risk of experiencing unemployment, e.g. through frictions in the matching process. Burgess and Rees (1998), however, investigate changes in job tenure for Britain and find no evidence of secular change ("end of a job for life") over the period 1975 to 1993. Nickell *et al* (1999) find little or no evidence of any trend increase in the chances of men becoming unemployed over the last 20 years. However, they conclude that the rising cost of job loss has contributed to the increase in the feeling of job insecurity among British men since the early 1980s.

Job tenure depends on within-firm promotions, moves across firms, layoffs and quits.[3] Gibbons (1996) provides a survey of within-firm organisation in the U.S.. Dolton and Makepeace (1992) provide evidence on occupational and career mobility, job tenure and reasons for job termination in Britain using the 1980 Survey of Graduates and Diplomats. Booth and Francesconi (2000) document patterns of career mobility and investigate various factors affecting the probabilities of workers' promotions, quits and layoffs. Other British studies have focused explicitly on internal labour markets (Gregg and Machin, 1993; Audas, Barmby and Treble, 1997). A wider literature on quits and layoffs is available, much originating from the job search and matching theories (Burdett, 1978; Burdett and Mortensen, 1980; Gottschalk and Maloney, 1985; McLaughlin, 1991).

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[3] Of course job tenure, taken on its own, is not informative about a labour market, or an appropriate parameter to compare different labour markets. If, for example, firm-specific human capital is more important than general human capital, then shorter job spells have a negative impact on wage levels and the growth of wages over the lifetime. If, however, firm-specific human capital is of minor importance on wage determination, then the affect of high job turnover on wages is less dramatic.

Employment security and protection from dismissal have a direct impact on job tenure. The view that workers should be protected from the loss of firm-specific capital has led many (European) countries to introduce severance pay for dismissed workers. It has been claimed that this compensation has a depressing effect on employment and participation rates (Lazear, 1990). Bertola (1990) has contested this view and found no correlation between the strictness of an employment regime and average employment levels.

This paper studies job duration in Britain in the 1990s, with a particular focus on jobs immediately following an unemployment spell.[4] This allows an investigation of the impact of unemployment on subsequent job tenure. We use an independent competing risks framework to model the duration of job tenure, with previous labour market status and the duration of the preceding unemployment spell amongst the explanatory variables. We consider two different specifications. The first specification uses the reasons for terminating a job as the independent competing risks to examine if certain characteristics are associated with specific job terminations. The second specification focuses on the longer run patterns of labour market experience and uses the employment status after the post-unemployment job as alternative outcomes.

We use a flexible baseline hazard to allow for non-monotonic variation in the hazard rates with job tenure, and to capture a wide range of possible effects of spell duration on the hazard rate. The results are more robust than those obtained from parametric approaches and provide important information on the impact of unemployment experiences on job tenure. We also explore age and gender differences in job tenure in some detail. Individual level data from the British Household Panel Survey (BHPS) are used, which provide accurate information on employment and unemployment spell duration for men and women. As wage information on all jobs held over the period studied is not available, we are unable to estimate structural models of job tenure and instead present reduced form specifications.[5] The important distinguishing feature of this work is that we particularly focus on job tenure following unemployment to investigate whether the unemployed find work that is stable and sustained.

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[4] We only provide a partial answer to how successful unemployed persons are as we disregard job spells following economic inactivity after a spell of unemployment. Moreover, we do not investigate here how they fare in terms of earnings.

Our results show that previous labour market status is important in determining the probability of upward career mobility (promotion), although the duration of the previous unemployment spell has no significant effect. Individuals who enter a job from unemployment are four times more likely to be laid off from this job, and are three times more likely to (re)enter unemployment than those entering from another job. Therefore unemployment has a severe penalty on subsequent job stability. However, there is a negative relationship between the duration of an unemployment spell and the exit rate from the subsequent job. This suggests that men and women who spend more time unemployed and searching for work are rewarded with a better worker-firm match. They are less likely to experience a firm initiated separation (layoff) or a worker initiated separation (quit) in their subsequent job. Further, we find that the duration of an unemployment spell has a negative and significant impact on the probability of the subsequent job ending in another spell of unemployment for both men and women.

An investigation of age differentials suggests that unemployment has less affect on future labour market behaviour for younger workers. We also find that women are more likely to quit from a job and are less likely to be laid off than men. Women are significantly more likely to leave the labour market than men, although this differential is reduced if women enter jobs from unemployment or economic inactivity. The probability of leaving the labour market falls with the duration of the preceding unemployment spell for men but not for women. Age, marital status, employment status of spouse, ethnicity, education, industry and firm size also emerge as important determinants of job tenure.

Estimation Framework

The typical framework used in the empirical analysis of labour market transitions is the job-search approach (see for example, Burdett, 1978; Burdett and Mortensen, 1980; Lancaster, 1990; Devine and Kiefer, 1991). The duration of a labour market spell is modelled by specifying the conditional probability of leaving that spell, the hazard rate. The hazard rate

[5] The BHPS only collects wage information annually, rather than collecting the wages of all jobs experienced between dates of interview.

from a job can be seen as the sum of two probabilities: the probability of a worker receiving an acceptable alternative job offer and the probability of a worker being laid off. Within firm promotions occur when a worker receives a new job offer from the same firm.

In general workers will leave jobs if the expected utility flows available outside the job exceed those in the job plus any costs incurred through leaving. Firms will terminate a job if the profits from doing so less costs exceed the profits of maintaining the job. We might expect the hazard rate from jobs to fluctuate non-monotonically with duration. Job separation rates may increase initially, as workers and firms learn about the quality of the match, and only the satisfactory job matches will survive. Thereafter, job separation rates will decline (Jovanovic, 1979). Similarly, the acquisition of job or firm-specific skills implies a hazard rate that declines with job tenure (Becker, 1962; Mortensen, 1978). However, on-the-job search suggests that quitting rates will increase with job tenure, as workers will have more time to find an acceptable alternative match. The shape of the hazard rate is therefore an empirical question. We use a flexible baseline hazard to allow for non-monotonic variation in the hazards with job tenure, and to capture a wider range of possible effects of spell duration on the hazard rate.

We estimate the determinants of job tenure using a continuous time maximum likelihood Cox proportional hazards model with competing risks of exit through promotions (p), quits (q), layoffs (l) and temporary jobs (m). Such an approach is referred to in the statistics literature as an independent competing risks model, where the log-likelihood can be split into the sum of its risk-specific hazards (Lancaster, 1990). In such a model observations which exit to a different destination are treated as censored. The cause specific hazard rate from a job is written:

$$h_{ij}(t; X_i) = \theta_j(t)\exp(X_i'\beta_j) \qquad [1]$$

where X_i is a set of individual, firm and local labour market characteristics, β_j are the coefficients to be estimated, t is the elapsed job duration, and $\theta_j(t)$ is the baseline hazard rate, i=1,…,N; j = p, q, l, m. In our approach, $\theta_j(t)$ is not restricted by any parametric specification.

Unobserved heterogeneity could be an important consideration when estimating hazard rates from employment (Farber, 1994). Unobservable characteristics, such as motivation, effort, the propensity to take leisure on the job (to 'shirk'), or strong social or family pressure to remain in work may influence job tenure. Ignoring this unobserved heterogeneity can bias the estimated coefficients. Typically unobserved heterogeneity enters duration models as a random variable with a given distribution. This variable is usually assumed to be independent across the cause-specific hazard rates (Katz and Meyer, 1990), common to all cause-specific hazards (Flinn and Heckman, 1982) or proportional to each other (Pickles and Davis, 1985). However, the inclusion of such an error term has been criticised by Narendranathan and Stewart (1993) because of its independence of time and the included covariates. They argue that introducing possible misspecifications through the unobserved heterogeneity term could bias the results of interest, and that there is no reason for any resulting distortions to be less serious than those caused by ignoring unobserved heterogeneity completely. [6]

To investigate whether unobserved heterogeneity is important in this sample we estimated competing risks models with a gamma-distributed heterogeneity term (Meyer, 1990). In all the specifications, the estimate on the heterogeneity term was not significantly different from zero.[7] Therefore, we present estimation results for models with no control for unobserved heterogeneity.

The Data Source

The data used in the analysis are from Waves 1 to 7 of the British Household Panel Survey (BHPS). The first wave was designed as a nationally representative random sample of the population of Great Britain living in private (non-institutional) households in the autumn of 1991. The sample consisted of 5,500 households covering approaching 10,000 individuals. These original respondents have been followed and they, and any adult co-residents, are interviewed at annual intervals. Children in original sample households are also interviewed when they reach the age of sixteen. The sample therefore remains broadly representative of

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[6] Han and Hausman (1990), Meyer (1990) and Böheim and Taylor (2000) find that the bias in the parameters caused by omitting unobserved heterogeneity in studies of unemployment duration is negligible with a sufficiently flexible specification of the baseline hazard rate.

[7] These results are available from the authors on request.

the British population as it changes through the decade. Individuals are included in our sample until they reach the state retirement age.[8]

At each date of interview, all respondents are asked detailed questions relating to their current employment status, in addition to rich information regarding household composition, individual demographics and income. Respondents are also asked about any other labour market spells experienced since September one year previously. In particular, respondents are asked to recall the start dates of each new job with the same employer, moves to a new employer, self-employment spell, spell of unemployment and looking for work or any other labour market spell.[9] Various related characteristics are collected for each job spell experienced, including the type of employment (full-time, part-time or self-employed), occupation, industry, and the reason for leaving the job.

Our focus is on the impact of an unemployment spell on duration in the subsequent job. To each job spell we have attached a vector of demographic, household, job related and local labour market characteristics, and the details of the previous labour market status. The values of the household, demographic and local labour market characteristics are determined at the date of interview before the job start, and any jobs that start prior to the Wave 1 date of interview are discarded.[10] The definition of unemployment used in the interviews is currently not working but looking for work. It is clear that the annual recall of labour market transitions may be subject to reliability problems, and Paull (1996) provides a discussion of the issues relevant to these data.[11] However, we argue that the data provide the best available information for Britain on labour market spell duration and relevant individual demographics for men and women in the 1990s.

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[8] This includes men under the age of 65 and women under the age of 60. Individuals are also required to be interviewed at two consecutive waves to be included in the sample.

[9] The respondents are given a calendar to help remember precise dates of spells of paid work, unemployment, retirement, maternity leave, looking after the family or home, in full-time education, long-term sick or disabled, government training scheme or something else.

[10] This is to ensure that the vector of demographic, household and labour market characteristics are exogenous to the job spell. Experiments using local labour market characteristics measured at the date of interview prior to the end of the job spell result in similar conclusions to those presented here.

[11] Paull (1996) in particular suggests that spells of unemployment are less likely to be recalled accurately than other types of spells, and that there is a tendency for them to be redefined as time out of the labour force. The unemployed typically have higher attrition rates than those in other labour market states. However, we avoid the potential biases that may result from this to some extent by not requiring individuals to be interviewed at all seven waves.

Descriptive Statistics

The BHPS annual employment histories provide information on 7,188 (non-agricultural) jobs experienced by working age individuals since the Wave 1 date of interview (Table 1). Of these, 72% are in full-time employment, 20% are in part-time employment and 7% in self-employment. Men experience more full-time jobs and self-employment, while part-time employment is substantially more common among women. Table 1 also shows that the mean duration of self-employment and full-time jobs are similar for men and women, at 20.5 months and 17 months respectively. Women, however, tend to remain longer in part-time work than men (a mean duration of 16 months for women, compared with 12 months for men). Of these 7,188 jobs, 1,097 (or 15%) follow an unemployment spell.[12] The distribution of post-unemployment jobs across job types is similar to all jobs. Men are more likely to enter self-employment or full-time work from unemployment, while women are four times more likely than men to enter part-time work from unemployment. In general, however, jobs that follow unemployment have a shorter mean duration (exceptions are part-time jobs among men and self-employment among women).

Table 2 examines the distribution and mean duration of jobs by reason for subsequent termination of the job and gender. Respondents are asked to describe why they stopped doing each job held throughout the year. We have collapsed this information into four categories – promotion, layoff, quit and the termination of temporary employment.[13] Promotions include promotions with the same employer and leaving for a better job, while layoffs include redundancies, dismissals and self-employment bankruptcies. This definition of promotions is rather unusual in including moves to better jobs outside the current employer. We have defined it this way to capture positive moves in the labour market to provide a comparison between tenure in jobs that end with positive career moves, those that are terminated involuntarily (layoffs), and those that end with exits from the labour market (quits).

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[12] Böheim and Taylor (2000) provide detailed analysis of these unemployment spells.

Quits include retiring, leaving for health reasons, to have a baby, or to look after the home, family or another person. Considering men initially, we see that 28% of jobs started since 1991 are terminated through promotion, 15% through quits and 10% through layoff. A further 11% of jobs are temporary jobs that come to an end, while 36% of jobs are censored. Temporary jobs have the shortest mean duration at 6 months, followed by jobs that terminate through layoffs at 11 months. Jobs that end in promotion have the longest mean duration at 16 months. The relatively short mean duration of jobs ending in quits and layoffs supports the job matching and experience model in which the worker and the firm learn about the quality of the match over time and only satisfactory matches survive (Jovanovic, 1979). Workers and/or firms who are unhappy with the match terminate the relationship at an early stage.

The distribution of reasons for separation is somewhat different for post-unemployment jobs than for all jobs. Jobs among men that follow unemployment spells are more likely to be terminated through redundancies, dismissals or be temporary jobs than all jobs. One fifth of post-unemployment jobs terminate through layoff and a further one fifth are temporary jobs that end. Promotions account for 18% and quits for 16% of post-unemployment job terminations. Again, however, temporary jobs and jobs that terminate through layoffs have the shortest mean duration (at 5 months and 11 months respectively), while those ending in promotion have the longest (at 16 months).

Among women, promotions account for 26% of all job terminations, quits for 22%, temporary jobs for 11% and layoffs for just 6%. A further 35% of jobs are censored. Of jobs that follow an unemployment spell, however, 23% are temporary jobs, and 15% terminate through layoffs. Therefore, again the proportion of post-unemployment jobs that end in layoffs is higher than all job terminations (by a factor of three). As found for men, jobs that end in promotion have the longest average tenure (at around 16 months), while those ending in quits and layoffs have a relatively short duration (at between 13 and 16 months respectively). This provides some support for the job matching with learning through experience model. Again, however, temporary jobs have the shortest mean duration at 5 months.

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[13] Our definition of a temporary job is defined ex post. That is, individuals may rationalise the swift termination of a job after the event by calling it a temporary job.

The fact that a large proportion of men and women enter temporary jobs on leaving unemployment should not necessarily be a cause for concern. Some employers may use temporary jobs as a means of screening the worker and gaining knowledge of the worker's productivity. In some cases temporary jobs may lead to more permanent positions within the same employer, or otherwise open up avenues of alternative employment opportunities. To investigate this in more detail, Table 3 and Table 4 examine the reasons for separation from a job by the subsequent labour market status for men and women for all jobs and jobs that follow unemployment.

Table 3 shows that, for both men and women, about 85% of all jobs ending in promotion result in further employment.[14] Two thirds of men who quit a job remain in employment subsequently, while 22% find themselves unemployed and 12% exit the labour force. Almost 30% of quits among women result in labour market withdrawal, and under 60% in employment. A greater proportion of layoffs and temporary jobs result in unemployment (almost 40% among men and 22% and 28% among women). About 55% of jobs terminated in these ways result in further employment.

Table 4 concentrates on jobs that follow an unemployment spell. This shows that, for both men and women, those who leave the job for promotion have the greatest likelihood of remaining in employment (81% and 84%). Among men, a similar proportion of those who quit, are laid-off or are in a temporary job remain in employment (about 50%). A greater proportion of layoffs and in particular temporary jobs result in further unemployment (more than 40%), while quits are more likely to result in labour market withdrawal. Among women, a lower proportion of temporary jobs result in employment than quits and layoffs (43% compared with 61% and 55%), and a considerably larger proportion result in unemployment (48% compared with 21% and 27%). Similar proportions of quits and layoffs result in labour market withdrawal (about 18%).

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[14] One might expect all promotions to result in continued employment. Remember however that our definition of promotion also includes individuals leaving for a better job. Clearly in some cases this decision was misguided as another job was not available.

Tables 3 and 4 show that post-unemployment jobs are less likely to result in employment. Unemployment after such a job is more likely than after jobs in general, irrespective of the reasons for separation. Among men, a considerable proportion of post-unemployment jobs terminate through quits and especially layoffs and temporary jobs and result in re-entry into unemployment. One half of temporary jobs that follow unemployment among women also result in re-entry into unemployment. Only a few post-unemployment temporary jobs are a stepping stone towards stable employment.[15]

Table 5 investigates subsequent labour market status and job tenure. Among men, 44% of all jobs terminate in job-to-job moves, 14% with unemployment, 4% with moves into economic inactivity, and 38% of jobs are censored. Those resulting in unemployment and inactivity have the shortest mean duration at 7 months and 10 months. Among women, 44% of all jobs terminate in further work, 9% in unemployment, 12% in economic inactivity, and 35% of jobs are censored. Women who re-enter unemployment have the shortest mean job tenure at 8 months. For men, a similar proportion of post-unemployment jobs as all jobs result in further employment (45%). However, one in four jobs following unemployment lead to further unemployment, and 5% into inactivity. Post-unemployment jobs which end in unemployment have the shortest mean tenure at under 7 months. The pattern is similar for women. Unemployed individuals who find work and subsequently re-enter unemployment do so quite rapidly, on average.

Table 6 shows the results of applying life-table methods to the raw data to take into account exposure risks of job termination using the non-parametric Kaplan-Meier estimator. In particular, it shows the proportion of jobs surviving for a given period of time by gender and reason for separation for all jobs and for jobs that follow an unemployment spell. The first row considers all destination states for all jobs for men, and shows that 2% of jobs last under 1 month, 6% less than two months and 12% less than three months. Less than one half of men remain in the same job after eighteen months, and only 40% remain in the job two years later. Of jobs that follow unemployment for men, 5% last under 1 month, 11% less than two

[15] These results are very different to those reported in Booth, Francesconi, and Frank (2000), who find that the majority of temporary jobs terminate in continued employment. This is explained by different definitions of temporary work – ours is an ex post definition, while Booth *et al*. use casual, seasonal and fixed term contract employment.

months and 21% less than three months. Only 44% of jobs that follow unemployment among men last for twelve months or more. The next three rows reveal that the main causes of such short job tenure are layoffs and temporary jobs. Some 18% of jobs that the unemployed enter are terminated through their temporary nature within six months, and 24% within a year.[16] Within twelve months, 22% of jobs end through layoffs and 14% through quits. This suggests that a large proportion of unemployed men accept short-term temporary jobs that last only a few months. Many others appear to either enter jobs for which their employer considers them poorly matched, or enter poor quality jobs that are characterised by high rates of destruction (Pissarides, 1994).

The results for women are similar to those for men, with jobs that follow unemployment having considerably lower survival rates than jobs in general. Less than one half of women remain in the same job twelve months after leaving unemployment, and only 24% two years later. As for men, the main cause of such short job tenure are temporary jobs, although as we might expect, quits are more important among women. For example, 17% of all jobs and 22% of jobs following unemployment are terminated through quits within twelve months, compared with 11% and 14% for men.

Table 7 shows that, among men, about 5% of jobs terminate into further employment and unemployment within 3 months. After twelve months, 27% of jobs have ended with moves into another job, and 14% into unemployment. For women, the survival rate into unemployment is higher, but that into economic inactivity is lower. After twelve months, 36% of post-unemployment jobs have ended with moves into further work, and 25% into unemployment. These figures are similar for both men and women. Jobs that the unemployed enter tend to have shorter mean duration than jobs in general, and are more likely to terminate in further unemployment.

Table 8 presents the mean, median and standard deviation for those jobs that follow an unemployment spell and that have ended in the observation period (i.e. that are not right hand censored) by gender and by the duration of the unemployment spell. It is important to ensure

[16] It occurred to us that this large proportion of quits and temporary job terminations could be caused by young people moving into and out of education and accepting short-term jobs in between. These results are however

that there are no systematic biases in the data caused by the relatively short observation window of seven years. In particular, we might expect a consistent negative relationship between the duration of the unemployment spell and that of the subsequent job. However, Table 8 suggests that there is very little systematic relationship between the two for either men or women. Indeed, if anything, longer unemployment spells appear to be associated with longer subsequent job tenure (with the exception of unemployment spells exceeding two years in length).[17]

These tables have shown that jobs that follow unemployment tend to have shorter mean durations and are more likely to terminate into unemployment than other jobs. They are also more likely to end through layoffs or to be temporary jobs. Part-time employment is a more common destination state from unemployment for women than for men. Temporary jobs and layoffs account for the largest proportion of jobs that follow unemployment among men. Since almost one half of such job terminations result in further unemployment, this perhaps should be of concern to policy makers. Quits explain a larger proportion of job separations among women, supporting previous British and U.S. studies (Blau and Kahn, 1981; Meitzen, 1986; Booth, Francesconi and Garcia-Serrano, 1999). Temporary jobs are the main cause of short job tenure among both men and women. This implies that unemployed workers accept short-term temporary jobs as a route back into employment. The relatively high rate of layoffs among men suggests that the unemployed also accept poor quality jobs that have high destruction rates.

Estimation Results

The determinants of job tenure are reported in Table 9 and Table 10.[18] The former reports the estimates with the reasons for separation as the independent competing risks, and the latter with subsequent employment status as the independent competing risks. The descriptive

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robust to excluding individuals aged under 22.

[17] This finding is robust to the inclusion of right hand censored spells.

[18] All specifications were estimated using Stata version 6.0 maximum likelihood. Although there are in some cases multiple observations of the same individual, the reported standard errors have been adjusted for this and the results are robust to restricting the sample to one observation per individual.

statistics of all variables included in the models are reported in the Appendix. For the purposes of this paper, the variables of most interest are the previous labour market status variables and the duration of the previous spell if unemployed, and it is the impact of these that we initially consider.

Table 9 shows that entering a job from unemployment has a negative and statistically significant impact on the promotion rate from that job. The promotion rate is about 30% lower for men and women who enter the job from unemployment relative to those who enter from another job.[19] Entering from economic inactivity also has a negative impact on the promotion rate for both men and women, reducing the promotion rate by 35% relative to those who enter the job from other employment. However, the duration of the prior unemployment spell on the probability of the job ending in promotion is quantitatively small and not significantly different from zero. Although the previous labour market status influences the probability of upward career mobility, the previous unemployment duration has no effect.

Entering a job from unemployment significantly increases the quit and layoff rates, and also the probability that the job will be temporary in nature, for both men and women. The quit rate is increased by about 70%, while the layoff rate is increased by a factor of four. Therefore, individuals who enter a job from unemployment are four times more likely to be laid off than those entering from another job. Moreover, they are three times more likely to be in temporary employment. Unemployment clearly has a severe penalty on job tenure.

However, the duration of the previous unemployment spell has a significant and negative effect on the hazard rates, particularly for men. That is, the probability of a job terminating through the worker quitting, the firm making the worker redundant, or a temporary job terminating, falls with the duration of the previous unemployment spell. This result holds for both men and women (although it is significant only at the 10% level for women).[20] The size of the effect varies. Each month of the previous unemployment spell reduces the baseline hazard rate by 5% for men to quit their job. For men in temporary post-unemployment jobs,

[19] These proportional changes are calculated by taking the exponent of the coefficients.

each month of unemployment reduces the baseline hazard by 9%. This suggests that, although unemployed men and women who enter work are much more likely to quit, be laid off or suffer a temporary job termination, those who spend more time unemployed and searching for work are rewarded with a better worker-firm match. They are less likely to experience a firm initiated separation (layoff) or a worker initiated separation (quit).[21] Men and women who enter work from economic inactivity have higher quit rates (by about 80%) relative to those who enter from another job.

Table 10 shows that the hazard rate from a post-unemployment job into all labour market states are increased. This suggests that a spell of unemployment initiates a period of high labour market mobility. The rate into further employment is increased by about 35% for both men and women. However, the largest impact is on the rates into unemployment. These are increased more than threefold relative to that for individuals entering the job from employment. Therefore, unemployed men and women who enter work are three times more likely to subsequently (re)enter unemployment than those entering from another job. The hazard rates into employment and unemployment fall with the duration of the unemployment spell for both men and women. The coefficients are well determined. Similarly, the hazard rate into economic inactivity falls with the duration of the unemployment spell for men. Each month in the previous unemployment spell reduces the probability of re-entering unemployment among men by 8%, and that of moving into another job by 3%. Men and women who enter work from economic inactivity have higher rates back into economic inactivity relative to those who enter from another job.

These results suggest that a spell of unemployment initiates a period of high labour market activity, increasing the probability that the subsequent job will terminate. The effect is particularly large on the layoff rate and the probability of the job being temporary, and on the probability of subsequently (re)entering unemployment. However, we have also found that these rates fall with the duration of the unemployment spell. That is, the longer individuals remain in unemployment and searching for work, the less likely they are to quit or to be laid

[20] Different specifications for the duration of the unemployment spell were tried, including a quadratic and higher polynomials to capture non-linear relationships. However, the evidence suggests that the effect is linear.

off from their subsequent job, and the less likely they are to re-enter unemployment. Men and women who spend more time unemployed and searching for work are rewarded with a better worker-firm match.

Other coefficients of interest

Having discussed the impact of the variables of primary interest, it is worthwhile to briefly consider the effects of the other covariates.

Age and family characteristics are included to capture the impact of life-cycle effects on job tenure. Younger workers, for example, are more likely to gain knowledge about the labour market and their own preferences by trying a variety of different jobs (Stigler, 1962). We therefore expect age and job tenure to be positively correlated. The coefficients on the age controls suggest that men and women under the age of 25 have higher promotion rates than those aged 55 and over. Age has little impact on the quit rate. Young women and women aged between 45 and 54 have higher layoff rates than those aged 55 and over. Also, men and women aged under 25 have higher job-to-job transition rates, while young men have a higher transition rate into unemployment. There is therefore some evidence of job shopping among younger workers. Men aged under 55 have significantly lower transition rates into economic inactivity than those aged 55 and over, reflecting the latter's likelihood of retirement.

Married men have higher promotion rates than single never married men, although this differential disappears if his spouse is in work. Men with a spouse in employment also have significantly lower quit and layoff rates and have lower transition rates into another job, unemployment and economic inactivity. This perhaps indicates a stronger attachment to the labour market. Married women (especially those with a husband in work), widowed or divorced women, and women with children have lower probabilities of entering temporary jobs than single never married women. Married women also have lower transition rates into unemployment.

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[21] This result is robust to different specifications of the model and various definitions of layoffs and quits. However, we are only considering unemployment spells that have ended in employment after a maximum duration of 80 months. There are, therefore, possible selection biases at work here.

Women of non-white ethnic origin have higher quit and layoff rates than white women. Consistent with this, they also have a higher transition rate into economic inactivity (Booth, Jenkins and Garcia-Serrano, 1999, report significantly lower working propensities among African, Indian, Pakistani, Bangladeshi and Chinese women relative to Europeans).

Education and occupation are included in the model as measures of skill. As we might expect, education generally increases the promotion rate for men, but also the quit rate (although only the coefficients on the 'O' Level and other qualifications variables are significantly different from zero in the latter).[22] Highly educated men are less likely to be laid off relative to those with no qualifications. Women educated to 'O' Level standard or with other qualifications are more likely to suffer a layoff than those with no formal qualifications. Women in manual occupations have higher quit rates than those in non-manual work. Consistent with this, they also have higher transition rates into unemployment and economic inactivity. Men in manual occupations also have a higher transition rate into unemployment than non-manual men.

Region of residence has little significant impact on job tenure. Men and women who live in the South East excluding London have higher promotion rates, while women in the same area have higher quit rates than those in the rest of the country. This is reflected in the higher job-to-job mobility rates of these individuals. Previous experience in part-time work increases the layoff rate for men and the quit rate for women. Previous unemployment experience increases the transition rate into unemployment for both men and women. There is therefore some evidence of a causal relationship between past and present unemployment experiences (see Arulampalam *et al*, 2000, for further investigations of this issue). Previous self-employment increases the quit rate, the job-to-job transition rate among men, and also that into economic inactivity.

In restructuring a business, employers may destroy part-time jobs before full-time jobs to minimise the loss of firm specific capital (Booth, Francesconi and Garcia-Serrano, 1999).

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[22] 'O' Levels refer to Ordinary level qualifications (or equivalent – now called GCSEs) taken at age 16 at the end of compulsory schooling, and acts as a selection mechanism into 'A' Level courses. 'A' Levels refer to Advanced level qualifications (or equivalent) representing university entrance-level qualifications typically taken at age 18.

This is reflected to some extent in these data. Women in part-time jobs have higher quit and layoff rates, and are more likely to be in temporary jobs. This is also reflected in a higher transition rate into economic inactivity. Men in part-time jobs, however, have higher promotion rates relative to those in full-time work, but are also more likely to be in temporary jobs and have higher transition rates into unemployment. The self-employed differ in their tenure profiles from paid employees (Taylor, 1998). Men and women in self-employment are less likely to be promoted (or to leave for a better job) than those in full-time paid employment. Self-employed men are also more likely to quit and are less likely to become bankrupt than full-time men are to be laid off. They are also less likely to make job-to-job transitions.

Public sector workers have lower promotion rates than those in the private sector. Men in public sector jobs are also less likely to be laid off, while women are less likely to quit. Consistent with these results is the finding that public sector workers have lower job to job transition rates. A number of industry effects also emerge in the data. Individuals employed in distribution, repairs, hotels and catering industries (reference category) have the most labour market mobility. Most notably, men and women in this industry generally have higher promotion and quit rates. Men employed in construction are more likely to be in a temporary job. Men and women with jobs in small firms (defined as employing fewer than 25 workers) are more likely to experience a layoff from that job. This suggests that jobs last a shorter time in small firms.

Demand side variables, measured by the unemployment rate in the individual's travel-to-work area, are important in determining job tenure. We might expect workers to be laid off when labour demand is low and unemployment high, and a number of British studies show that quits are pro-cyclical and layoffs counter-cyclical (Burgess, 1994; Gregg and Wadsworth, 1995; Burgess and Rees, 1996). These data in fact suggest higher levels of labour market mobility at times of low labour demand.

Investigating Age and Gender Differences

To investigate further the differences between age groups and men and women, we estimate various other specifications of the model. Table 11 and Table 12 show the results from interacting the previous labour market status variables with being aged under 25. These specifications also include all variables as listed in Table 9. We might expect younger

members of the labour force to exhibit different behaviour than more mature workers. Arulampalam *et al* (2000) for example show that young men suffer less state dependence effects from unemployment than mature men.

The results in Table 11 show that women under the age of 25 who enter a job from unemployment are less likely to be laid off than those aged 25 and over (a coefficient of 1.423-0.862=0.561 compared with 1.423). Similarly, the duration of the unemployment spell has a stronger negative impact on all separations for those aged under 25. That is, the duration of the unemployment spell reduces the probability of leaving the subsequent job for any reason more for those aged under 25 than for men and women in general. The results in Table 12 are similar. This is consistent with the findings of Arulampalam *et al* (2000), suggesting that unemployment has less effect on future labour market behaviour for younger workers than for more mature workers.

We examine gender differences in more detail by estimating competing risks model where we pool the observations for men and women. Interactions of the previous labour market status terms with gender are summarised in Table 13 and Table 14. The specification reported also includes all the variables in Table 9. Our first observation from Table 13 is that there are no gender differences in the probability of promotion, with a coefficient on the female dummy variable of 0.001 and a standard error of 0.082. This is contrary to the conventional view that women are less likely to be promoted than men either because of covert discrimination in promotion procedures (the 'glass ceiling'), or because they invest less in the specific human capital required for promotion due to better outside opportunities (Lazear and Rosen, 1990). However, our finding is consistent with other recent evidence for Britain (Booth and Francesconi, 2000; Booth, Francesconi and Frank, 1998). Further, the effect of the duration of the unemployment spell is insignificant, and there are no differential impacts of previous labour market status for men and women on promotion rates.

The second column shows that women are significantly more likely to quit from their job than men. The coefficient is quantitatively large, the hazard rate for quits is 41% higher for women than for men. Although the duration of the unemployment spell has a negative and statistically significant effect on the termination of the job through a quit, the gender interaction terms are poorly determined and not statistically different from zero. Therefore the characteristics of the previous labour market spell have no differential impact for men and

women. Women are less likely to be laid off than men (column 3), the coefficient is statistically significant, reducing the hazard rate by 32%.[23] Again, although men and women entering a job from unemployment have higher layoff rates which fall with the duration of the unemployment spell, there are no gender differences in these effects.

Table 14 suggests that no gender differences exist in the probability of making a job to job transition. Entering a job from economic inactivity however, reduces the probability of subsequent unemployment for women relative to men. For men, the coefficient is 0.381, while for women, the coefficient is calculated as –0.277+0.381-0.756 = -0.652. Also, women are significantly more likely to enter economic inactivity than men. The quantitative impact is large, increasing the probability by a factor of three. However, this differential is reduced, although not entirely eliminated, if the job is entered from unemployment or economic inactivity. For men, the coefficient for those entering a job from unemployment is estimated at 1.04, compared with 1.104+1.04-0.997= 1.147 for women. Similarly, for men entering a job from economic inactivity the coefficient is 1.564, compared with 1.564+1.104-0.663= 2.005 for women. The duration of the preceding unemployment spell has a negligible impact among women, with a coefficient of –0.073+0.087=0.014 compared with –0.073 for men. The probability of entering economic inactivity falls with the duration of the preceding unemployment spell for men, but not for women.

Conclusions

This paper has examined job tenure for men and women in Britain in the 1990s. By using an independent competing risks proportional hazard model, we have studied how previous labour market status affects the promotion, quit and layoff hazard rates in the subsequent job, and the probability of a temporary job ending. Data from the BHPS provide the information on unemployment and job spells.

Descriptive statistics show that part-time employment is a more common destination state from unemployment for women than for men, and that the duration of the part-time job is relatively short (especially for men). Temporary jobs and layoffs account for the largest

[23] See also Blau and Kahn (1981) and Booth, Francesconi and Garcia-Serrano (1999).

proportion of jobs that follow unemployment among men, while quits explain a larger proportion among women. This supports previous British and U.S. studies (Booth, Francesconi and Garcia-Serrano, 1999; Blau and Kahn, 1981; Meitzen, 1986). Temporary jobs are the main cause of short job tenure among both men and women, implying that unemployed workers accept short-term temporary jobs as a route back into employment. However, approaching one half of men who leave a temporary job or who are laid off re-enter unemployment compared with one third of those who quit. Twenty percent of men and women who find work following a spell of unemployment re-enter unemployment within twelve months. The relatively high layoff rate among men suggests that the unemployed accept poor quality jobs that have high destruction rates.

Importantly, individuals who enter a job from unemployment are found to be four times more likely to be laid off from their subsequent job, and three times more likely to (re)enter unemployment than those entering from another job. Therefore unemployment has a severe penalty on subsequent job tenure. However, the duration of the previous unemployment spell reduces the exit rate from the subsequent job. This suggests that men and women who spend more time unemployed and searching for work are rewarded with a better worker-firm match. They are less likely to experience a firm initiated separation (layoff) or a worker initiated separation (quit) in their subsequent job. Further, we find that the duration of the unemployment spell has a negative and significant impact on the probability of the subsequent job ending in another spell of unemployment for both men and women. The duration of the unemployment spell has no statistically significant impact on upward career mobility from the subsequent job. These findings suggest that, given an unemployment experience, the duration of the unemployment spell has no deleterious impact on the subsequent job tenure. Although these results should be treated with caution because of the rather short observation window the data allow, they nevertheless are of clear interest to policy makers.

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Tables

Table 1: Job tenure by type of employment and gender

Employment Type	Men %	Men Mean duration	Women %	Women Mean duration	All %	All Mean duration	N
All Jobs							
Self-employment	10.3	20.4	4.7	20.4	7.4	20.4	534
Full-time employment	83.6	17.0	61.0	17.5	72.0	17.2	5178
Part-time employment	6.1	11.9	34.3	16.4	20.5	15.8	1476
Total	100.0	17.1	100.0	17.2	100.0	17.2	7188
N	3515		3673		7188		
Jobs following unemployment							
Self-employment	11.3	13.7	3.1	21.1	8.1	14.7	89
Full-time employment	79.8	13.9	61.7	13.4	72.7	13.7	798
Part-time employment	8.9	11.9	35.3	14.5	19.1	13.7	210
Total	100.0	13.7	100.0	14.0	100.0	13.8	1097
N	672		425		1097		

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Jobs in agriculture excluded. Incomplete employment spells included. Column percentages.

Table 2: Job tenure by reason for separation and gender

Reason for separation	Men %	Men Mean duration	Women %	Women Mean duration	All %	All Mean duration	N
All jobs							
Promoted	27.8	15.8	26.2	16.0	27.0	15.9	1939
Quit	14.7	14.4	22.1	14.1	18.5	14.2	1328
Layoff	9.8	11.1	5.6	15.7	7.7	12.9	551
Temporary job	11.3	5.9	11.1	5.9	11.2	5.9	805
Censored	36.5	24.2	34.9	24.0	35.7	24.1	2565
Total	100.0	17.2	100.0	17.2	100.0	17.2	7188
N	3515		3673		7188		
Jobs following unemployment							
Promoted	17.7	16.0	19.3	16.6	18.3	16.3	201
Quit	15.9	12.3	27.5	12.9	20.4	12.7	224
Layoff	20.7	10.6	14.6	13.9	18.3	11.6	201
Temporary job	21.0	4.9	22.8	4.9	21.7	4.9	238
Censored	24.7	23.0	15.8	26.1	21.2	23.8	233
Total	100.0	13.7	100.0	14.0	100.0	13.8	1097
N	672		425		1097		

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Incomplete employment spells included. Column percentages. Censored include spells right hand censored due to attrition and spells current at the Wave 7 date of interview. Promoted includes internal promotions with the same employer and moves to better jobs. Quit includes retirement, health reasons, left to have a baby, look after family or other person. Layoff includes dismissals and redundancies. Jobs in agriculture excluded.

Table 3 Reason for separation by subsequent labour market status and gender: All spells

	Subsequent labour market status			
Reason for separation	Employment	Unemployment	Inactive	N
Men				
Promotion	86.5	10.5	3.0	923
Quit	65.8	22.3	11.9	494
Layoff	57.2	39.1	3.8	320
Temporary job	53.3	38.7	8.0	377
N	1507	478	129	3396
Women				
Promotion	85.7	7.0	7.3	916
Quit	58.8	12.3	29.2	757
Layoff	61.1	21.7	17.2	198
Temporary job	55.8	28.3	16.0	382
N	1562	308	383	3536

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Incomplete employment spells included. Jobs in agriculture excluded. Row percentages.

Table 4 Reason for separation by subsequent labour market status and gender: Spells following unemployment

	Subsequent labour market status			
Reason for separation	Employment	Unemployment	Inactive	N
Men				
Promotion	80.7	14.9	4.4	114
Quit	52.9	31.7	15.4	104
Layoff	54.9	40.6	4.5	133
Temporary job	51.9	45.1	3.0	133
N	289	164	31	484
Women				
Promotion	83.5	12.7	3.8	79
Quit	60.7	21.4	17.9	112
Layoff	55.0	26.7	18.3	60
Temporary job	43.0	48.4	8.6	93
N	207	95	42	344

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Incomplete employment spells included. Jobs in agriculture excluded. Row percentages.

Table 5: Job tenure by subsequent labour market status and gender

Subsequent labour market state	Men %	Men Mean duration	Women %	Women Mean duration	All %	All Mean duration	N
All jobs							
Employment	44.1	14.9	44.2	15.1	44.3	15.0	3069
Unemployment	14.1	7.2	8.7	7.8	11.3	7.4	786
Inactive	3.8	10.3	10.8	12.2	7.4	11.7	512
Censored	37.8	24.2	36.3	24.0	37.0	24.1	2565
Total	100.0	17.2	100.0	17.4	100.0	17.3	6932
N	3396		3536		6932		
Jobs following unemployment							
Employment	44.5	12.5	50.4	14.3	46.8	13.3	496
Unemployment	25.2	6.8	23.1	5.5	24.4	6.3	259
Inactive	4.8	11.7	10.2	13.4	6.9	12.7	73
Censored	25.5	23.0	16.3	26.1	22.0	23.8	233
Total	100.0	13.7	100.0	14.1	100.0	13.9	1061
N	650		411		1061		

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Incomplete employment spells included. Column percentages. Censored include spells right hand censored due to attrition and spells current at the Wave 7 date of interview. Jobs in agriculture excluded.

Table 6: Life table estimates of job tenure by reason for separation (surviving %)

	Duration (months)									
All jobs										
Men	1	2	3	6	12	18	24	36	48	N
All	98	94	88	75	59	48	40	28	21	3515
Promoted	99	98	96	91	83	74	65	54	45	
Quit	99	98	97	94	89	85	81	75	69	
Layoff	100	99	98	95	91	89	87	84	82	
Temporary job	99	98	96	91	88	86	86	85	85	
Women										
All	97	94	88	77	59	48	39	27	20	3673
Promoted	99	98	97	92	84	75	68	56	49	
Quit	99	98	97	92	83	78	72	64	57	
Layoff	100	100	99	98	96	94	92	89	86	
Temporary job	99	97	96	92	88	87	86	85	84	
Jobs following unemployment										
Men										
All	95	89	79	62	44	34	28	20	13	672
Promoted	100	99	97	94	87	79	71	61	51	
Quit	99	98	96	91	86	80	76	70	61	
Layoff	99	98	95	89	78	73	71	65	57	
Temporary job	98	94	90	82	76	74	72	72	72	
Women										
All	95	88	79	63	44	33	24	15	8	425
Promoted	100	99	98	93	87	79	72	57	47	
Quit	98	97	92	88	78	70	60	54	42	
Layoff	99	98	97	95	88	82	77	69	62	
Temporary job	98	94	91	81	73	73	72	70	70	

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Promoted includes internal promotions with the same employer and moves to better jobs. Quit includes retirement, health reasons, left to have a baby, look after family or other person. Layoff includes dismissals and redundancies. Jobs in agriculture excluded.

Table 7: Life table estimates of job tenure by subsequent labour market status (surviving %)

	Duration (months)									
All jobs										
Men	1	2	3	6	12	18	24	36	48	N
All	98	94	88	75	59	48	40	28	21	3515
Employment	99	97	94	85	73	61	53	40	32	
Unemployment	99	97	95	90	86	85	83	81	79	
Inactivity	100	99	99	98	96	96	95	94	93	
Women										
All	97	94	88	77	59	48	39	27	20	3673
Employment	99	97	94	87	73	63	53	41	32	
Unemployment	99	98	97	94	92	90	89	87	87	
Inactivity	99	99	98	95	91	89	86	82	80	
Jobs following unemployment										
Men										
All	95	89	79	62	44	34	28	20	13	672
Employment	98	96	91	81	64	54	46	36	26	
Unemployment	98	94	89	81	75	72	69	66	63	
Inactivity	99	99	98	97	95	94	94	93	87	
Women										
All	95	88	79	63	44	33	24	15	8	425
Employment	99	97	93	82	65	52	42	29	19	
Unemployment	97	93	88	83	76	74	73	70	67	
Inactivity	99	99	98	94	92	89	83	77	77	

Notes: Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60. Jobs in agriculture excluded.

Table 8: Job tenure by duration of preceding unemployment spell

Unemployment Duration	Job Tenure: Men Mean	Men S.D.	Men Median	Women Mean	Women S.D.	Women Median	N
Under 3 months	15.1	19.5	7.0	15.5	19.8	7.5	457
3 ≤ months < 6	12.8	16.0	5.8	15.4	18.5	6.1	267
6 ≤ months < 9	13.9	17.7	6.0	17.3	16.4	11.5	145
9 ≤ months < 12	14.4	19.2	4.5	19.1	22.9	15.0	69
12 ≤ months < 18	14.2	14.1	10.9	11.1	7.2	9.1	68
18 ≤ months < 24	19.1	15.6	15.3	14.5	12.5	12.4	36
24 ≤ months	11.7	9.7	9.5	8.4	5.3	8.4	58

Notes: Completed spells only. Only spells starting after the Wave 1 date of interview. Men aged under 65 and women aged under 60.

Table 9: Determinants of job tenure by gender and reason for separation

	Job ended by:							
	Promotion		Quit		Layoff		Temporary job	
Variable	Men	Women	Men	Women	Men	Women	Men	Women
Previous spell	-0.341	-0.353	0.541	0.532	1.412	1.306	1.201	1.065
Unemployment	*(0.128)*	*(0.157)*	*(0.156)*	*(0.155)*	*(0.167)*	*(0.225)*	*(0.161)*	*(0.189)*
Previous spell out of the	-0.440	-0.426	0.659	0.592	-0.067	0.051	0.454	0.254
labour force	*(0.200)*	*(0.150)*	*(0.215)*	*(0.113)*	*(0.375)*	*(0.264)*	*(0.258)*	*(0.193)*
Duration of previous spell if	-0.003	-0.005	-0.049	-0.051	-0.067	-0.059	-0.092	-0.047
Unemployed (months)	*(0.012)*	*(0.024)*	*(0.018)*	*(0.030)*	*(0.018)*	*(0.035)*	*(0.021)*	*(0.030)*
Age[a]:								
Aged under 25	0.482	0.408	0.083	0.262	0.352	0.771	-0.146	-0.601
	(0.194)	*(0.166)*	*(0.256)*	*(0.187)*	*(0.276)*	*(0.368)*	*(0.297)*	*(0.430)*
Aged 25-34	0.148	0.400	-0.022	0.164	-0.004	0.100	-0.130	-0.495
	(0.171)	*(0.173)*	*(0.240)*	*(0.202)*	*(0.268)*	*(0.381)*	*(0.286)*	*(0.427)*
Aged 35-44	-0.049	0.228	-0.039	-0.096	0.136	0.476	-0.007	-0.152
	(0.204)	*(0.203)*	*(0.283)*	*(0.229)*	*(0.332)*	*(0.440)*	*(0.384)*	*(0.466)*
Aged 45-54	-0.468	-0.094	-0.403	0.060	0.316	1.127	0.494	-0.366
	(0.232)	*(0.252)*	*(0.308)*	*(0.250)*	*(0.325)*	*(0.469)*	*(0.326)*	*(0.466)*
Non-white	0.087	-0.065	-0.140	0.507	0.120	0.670	0.768	-0.469
	(0.217)	*(0.246)*	*(0.335)*	*(0.247)*	*(0.350)*	*(0.382)*	*(0.437)*	*(0.417)*
Marital Status[c]:								
Married	0.310	-0.061	0.063	-0.214	0.067	-0.135	-0.534	-0.644
	(0.151)	*(0.167)*	*(0.165)*	*(0.174)*	*(0.264)*	*(0.339)*	*(0.291)*	*(0.269)*
Widowed/divorced	0.019	0.042	0.425	-0.516	0.412	-0.237	-0.486	-1.083
	(0.281)	*(0.180)*	*(0.311)*	*(0.242)*	*(0.385)*	*(0.394)*	*(0.393)*	*(0.392)*
Spouse working	-0.336	-0.003	-0.361	-0.104	-0.409	-0.205	-0.230	-0.384
	(0.118)	*(0.136)*	*(0.152)*	*(0.135)*	*(0.197)*	*(0.282)*	*(0.214)*	*(0.223)*
Has dependent children	0.185	-0.152	0.063	-0.012	0.367	-0.096	0.110	-0.384
	(0.124)	*(0.121)*	*(0.165)*	*(0.132)*	*(0.210)*	*(0.230)*	*(0.259)*	*(0.197)*
Highest Qualification[d]:								
Degree	0.371	0.183	0.196	-0.003	-1.133	-0.402	0.140	0.445
	(0.221)	*(0.201)*	*(0.289)*	*(0.229)*	*(0.422)*	*(0.574)*	*(0.318)*	*(0.305)*
A Levels or equivalent	0.353	0.001	0.284	0.026	-0.336	0.166	0.036	-0.190
	(0.197)	*(0.181)*	*(0.232)*	*(0.190)*	*(0.232)*	*(0.354)*	*(0.258)*	*(0.275)*
O Levels or equivalent	0.392	-0.115	0.649	0.180	-0.019	0.686	-0.067	-0.343
	(0.198)	*(0.183)*	*(0.234)*	*(0.181)*	*(0.235)*	*(0.325)*	*(0.300)*	*(0.289)*
Other qualifications	0.184	-0.177	0.795	-0.259	-0.109	0.811	0.005	-0.888
	(0.243)	*(0.197)*	*(0.271)*	*(0.209)*	*(0.282)*	*(0.334)*	*(0.350)*	*(0.403)*
Region:								
London	-0.019	-0.195	0.066	-0.289	-0.394	0.054	-0.283	0.103
	(0.186)	*(0.160)*	*(0.220)*	*(0.204)*	*(0.322)*	*(0.397)*	*(0.316)*	*(0.247)*
Rest of the South East	0.580	0.281	0.242	0.575	-0.006	0.310	0.477	0.276
	(0.110)	*(0.113)*	*(0.158)*	*(0.123)*	*(0.190)*	*(0.228)*	*(0.215)*	*(0.199)*
Has prior experience of:								
Unemployment	-0.101	-0.049	-0.041	-0.116	0.232	-0.177	0.156	0.124
	(0.095)	*(0.090)*	*(0.132)*	*(0.109)*	*(0.168)*	*(0.197)*	*(0.172)*	*(0.166)*
Part-time work	-0.153	0.075	0.135	0.241	0.462	0.067	0.195	0.229
	(0.143)	*(0.098)*	*(0.195)*	*(0.116)*	*(0.199)*	*(0.226)*	*(0.225)*	*(0.184)*
Self-employment	0.095	0.315	0.329	0.242	0.051	0.436	-0.198	0.084
	(0.136)	*(0.204)*	*(0.170)*	*(0.203)*	*(0.219)*	*(0.369)*	*(0.217)*	*(0.346)*
Type of employment[e]:								
Part-time job	0.584	-0.016	0.018	0.240	0.148	0.384	0.654	0.379
	(0.186)	*(0.108)*	*(0.258)*	*(0.111)*	*(0.255)*	*(0.207)*	*(0.209)*	*(0.194)*
Self-employment	-0.754	-0.629	0.388	-0.010	-1.065	-0.992	0.124	0.161
	(0.212)	*(0.321)*	*(0.172)*	*(0.227)*	*(0.346)*	*(0.745)*	*(0.241)*	*(0.378)*

Continued over

Table 9 (*continued*)

	Promotion		Quit		Layoff		Temporary job	
Variable	Men	Women	Men	Women	Men	Women	Men	Women
Public sector job	-0.509	-0.302	-0.377	-0.608	-0.919	-0.560	-0.040	0.039
	(0.206)	*(0.142)*	*(0.257)*	*(0.177)*	*(0.396)*	*(0.414)*	*(0.317)*	*(0.251)*
Manual Job	0.086	-0.008	0.207	0.391	0.328	0.030	0.238	0.145
	(0.108)	*(0.111)*	*(0.151)*	*(0.100)*	*(0.173)*	*(0.213)*	*(0.170)*	*(0.175)*
Industry[f]:								
Energy	-0.279	—	—	-0.059	0.162	—	—	—
	(0.297)			*(0.530)*	*(0.555)*			
Extraction	-0.432	-0.288	-1.563	-0.738	0.054	—	0.073	-0.390
	(0.206)	*(0.329)*	*(0.519)*	*(0.348)*	*(0.383)*		*(0.343)*	*(0.500)*
Metal goods	-0.313	-0.801	-0.537	-0.909	0.196	0.242	0.145	-0.217
	(0.155)	*(0.257)*	*(0.193)*	*(0.278)*	*(0.246)*	*(0.340)*	*(0.263)*	*(0.409)*
Light manufacturing	-0.165	-0.330	-0.383	-0.535	0.224	0.642	0.135	-0.210
	(0.161)	*(0.174)*	*(0.200)*	*(0.194)*	*(0.242)*	*(0.297)*	*(0.240)*	*(0.345)*
Construction	-0.366	—	-0.462	-0.178	0.243	—	0.644	—
	(0.211)		*(0.236)*	*(0.470)*	*(0.273)*		*(0.299)*	
Transport	-0.189	-0.251	-0.541	-0.412	-0.082	-1.248	-0.577	-0.291
	(0.177)	*(0.171)*	*(0.239)*	*(0.217)*	*(0.326)*	*(0.746)*	*(0.379)*	*(0.333)*
Banking and finance	0.034	-0.355	-0.255	-0.487	-0.316	0.076	-0.024	0.067
	(0.151)	*(0.137)*	*(0.192)*	*(0.158)*	*(0.270)*	*(0.268)*	*(0.280)*	*(0.260)*
Other services	-0.030	-0.415	-0.191	-0.283	0.089	-0.453	0.260	-0.033
	(0.178)	*(0.131)*	*(0.217)*	*(0.139)*	*(0.286)*	*(0.293)*	*(0.315)*	*(0.249)*
Firm size < 25 employees	0.022	-0.059	0.059	0.001	0.556	0.462	-0.164	-0.260
	(0.101)	*(0.094)*	*(0.125)*	*(0.100)*	*(0.141)*	*(0.190)*	*(0.161)*	*(0.149)*
Local unemployment rate	0.233	0.185	0.148	0.165	0.169	0.187	0.202	0.146
(x100)	*(0.016)*	*(0.015)*	*(0.020)*	*(0.016)*	*(0.022)*	*(0.032)*	*(0.026)*	*(0.023)*
Log-likelihood	-3714.3	-3794.6	-2213.6	-3527.6	-1603.3	-900.8	-1970.3	-1965.0
χ^2	395.1	330.6	181.9	323.4	312.5	219.6	277.8	234.7
Prob > χ^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Number of observations	2305	2360	2305	2360	2305	2360	2305	2360
Censored observations (%)	75	76	85	77	89	94	88	88

Notes: Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. Promoted includes internal promotions with the same employer and moves to better jobs. Quit includes retirement, health reasons, left to have a baby, look after family or other person. Layoff includes dismissals and redundancies. [a] Aged 55 and over is the reference category. [b] White is the reference category. [c] Single never married is the reference category. [d] No qualifications is the reference category. [e] Full-time job is the reference category. [f] Distribution, hotels and catering is the reference category. Jobs in agriculture excluded.

Table 10: Determinants of job tenure by gender and subsequent labour market status.

	Job followed by					
	Employment		Unemployment		Inactivity	
Variable	Men	Women	Men	Women	Men	Women
Previous spell	0.284	0.318	1.138	1.242	0.976	0.046
Unemployment	*(0.091)*	*(0.108)*	*(0.145)*	*(0.188)*	*(0.303)*	*(0.260)*
Previous spell out of the	-0.249	-0.111	0.365	-0.345	1.507	0.946
Labour force	*(0.160)*	*(0.097)*	*(0.227)*	*(0.274)*	*(0.349)*	*(0.137)*
Duration of previous	-0.030	-0.046	-0.083	-0.053	-0.072	0.013
unemployment (months)	*(0.010)*	*(0.020)*	*(0.020)*	*(0.023)*	*(0.031)*	*(0.031)*
Age[a]:						
Aged under 25	0.431	0.403	0.391	-0.451	-1.266	0.089
	(0.157)	*(0.144)*	*(0.209)*	*(0.479)*	*(0.418)*	*(0.347)*
Aged 25-34	0.214	0.255	0.223	-0.446	-1.668	-0.030
	(0.144)	*(0.148)*	*(0.201)*	*(0.422)*	*(0.446)*	*(0.353)*
Aged 35-44	0.185	0.247	0.264	-0.440	-2.354	-0.513
	(0.170)	*(0.169)*	*(0.283)*	*(0.506)*	*(0.529)*	*(0.400)*
Aged 45-54	0.043	0.120	0.215	-0.147	-1.289	-0.010
	(0.181)	*(0.195)*	*(0.302)*	*(0.551)*	*(0.418)*	*(0.404)*
Non-white	0.138	-0.032	0.086	0.212	0.293	0.669
	(0.215)	*(0.160)*	*(0.306)*	*(0.456)*	*(0.532)*	*(0.276)*
Marital Status[c]:						
Married	0.132	-0.153	-0.156	-0.824	-0.367	0.090
	(0.132)	*(0.134)*	*(0.233)*	*(0.297)*	*(0.392)*	*(0.278)*
Widowed/divorced	0.158	-0.273	-0.106	-0.403	—	-0.739
	(0.190)	*(0.162)*	*(0.374)*	*(0.342)*		*(0.362)*
Spouse working	-0.285	-0.085	-0.380	-0.041	-0.530	-0.304
	(0.098)	*(0.109)*	*(0.174)*	*(0.244)*	*(0.307)*	*(0.197)*
Has dependent children	0.151	-0.100	0.082	-0.346	0.795	0.076
	(0.094)	*(0.096)*	*(0.216)*	*(0.221)*	*(0.337)*	*(0.183)*
Highest Qualification[d]:						
Degree	0.172	0.214	-0.088	0.474	-0.447	0.240
	(0.167)	*(0.163)*	*(0.282)*	*(0.376)*	*(0.495)*	*(0.312)*
A Levels or equivalent	0.192	0.034	-0.146	-0.069	0.046	0.160
	(0.143)	*(0.143)*	*(0.188)*	*(0.276)*	*(0.380)*	*(0.228)*
O Levels or equivalent	0.407	0.049	-0.184	0.019	-0.172	0.308
	(0.147)	*(0.141)*	*(0.211)*	*(0.266)*	*(0.420)*	*(0.232)*
Other qualifications	0.325	-0.178	-0.073	-0.137	-0.088	0.009
	(0.193)	*(0.158)*	*(0.247)*	*(0.283)*	*(0.468)*	*(0.256)*
Region:						
London	0.024	-0.166	-0.478	-0.055	-0.196	0.049
	(0.166)	*(0.139)*	*(0.247)*	*(0.284)*	*(0.410)*	*(0.237)*
Rest of the South East	0.459	0.404	0.205	0.292	0.296	0.284
	(0.094)	*(0.090)*	*(0.175)*	*(0.184)*	*(0.306)*	*(0.181)*
Has prior experience of:						
Unemployment	-0.112	-0.099	0.492	0.446	-0.231	-0.280
	(0.079)	(0.082)	(0.146)	(0.157)	(0.251)	(0.142)
Part-time work	0.012	0.146	0.203	0.245	0.482	0.108
	(0.130)	*(0.080)*	*(0.196)*	*(0.193)*	*(0.346)*	*(0.156)*
Self-employment	0.202	0.201	-0.257	0.253	0.740	0.335
	(0.108)	*(0.203)*	*(0.189)*	*(0.323)*	*(0.318)*	*(0.283)*
Type of employment[e]:						
Part-time job	0.238	0.054	0.777	0.179	0.618	0.676
	(0.131)	*(0.085)*	*(0.203)*	*(0.186)*	*(0.350)*	*(0.154)*
Self-employment	-0.412	-0.229	-0.118	-0.153	0.162	-0.165
	(0.126)	*(0.201)*	*(0.245)*	*(0.491)*	*(0.405)*	*(0.405)*

Continued over

Table 10 (*continued*)

	Employment		Unemployment		Inactivity	
Variable	Men	Women	Men	Women	Men	Women
Public sector job	-0.552	-0.198	-0.227	-0.390	-0.263	-0.909
	(0.156)	*(0.113)*	*(0.297)*	*(0.317)*	*(0.470)*	*(0.239)*
Manual Job	0.102	0.051	0.440	0.423	0.103	0.327
	(0.090)	*(0.084)*	*(0.151)*	*(0.162)*	*(0.291)*	*(0.143)*
Industry[f]:						
Energy	-0.388	0.349	-0.778	—	—	—
	(0.213)	*(0.271)*	*(0.720)*			
Extraction	-0.695	-0.142	-0.003	—	0.222	—
	(0.182)	*(0.258)*	*(0.268)*		*(0.538)*	
Metal goods	-0.261	-0.564	-0.046	-0.088	-0.077	—
	(0.123)	*(0.163)*	*(0.200)*	*(0.367)*	*(0.369)*	
Light manufacturing	-0.100	-0.339	-0.126	-0.340	-0.512	0.270
	(0.135)	*(0.136)*	*(0.205)*	*(0.311)*	*(0.450)*	*(0.251)*
Construction	-0.110	—	0.009	—	0.107	
	(0.174)		*(0.251)*		*(0.464)*	
Transport	-0.236	-0.303	-0.373	-0.712	—	-0.022
	(0.137)	*(0.159)*	*(0.278)*	*(0.385)*		*(0.336)*
Banking and finance	-0.106	-0.193	-0.085	-0.433	-0.272	-0.290
	(0.122)	*(0.110)*	*(0.237)*	*(0.259)*	*(0.423)*	*(0.215)*
Other services	-0.039	-0.332	-0.267	-0.439	0.599	0.198
	(0.140)	*(0.106)*	*(0.258)*	*(0.240)*	*(0.402)*	*(0.174)*
Firm size < 25 employees	0.073	0.028	0.165	-0.011	0.021	-0.019
	(0.079)	*(0.075)*	*(0.132)*	*(0.161)*	*(0.247)*	*(0.139)*
Local unemployment rate	0.207	0.186	0.151	0.137	0.208	0.149
(x100)	*(0.014)*	*(0.013)*	*(0.020)*	*(0.025)*	*(0.037)*	*(0.021)*
Log-likelihood	-6468.0	-6766.2	-2206.2	-1451.2	-540.6	-1656.0
χ^2	422.7	383.3	337.5	322.4	211.6	272.5
Prob > χ^2	0.000	0.000	0.000	0.000	0.000	0.000
Number of observations	2305	2360	2305	2360	2305	2360
Censored observations (%)	57	57	86	91	96	89

Notes: Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. [a] Aged 55 and over is the reference category. [b] White is the reference category. [c] Single never married is the reference category. [d] No qualifications is the reference category. [e] Full-time job is the reference category. [f] Distribution, hotels and catering is the reference category. Jobs in agriculture excluded.

Table 11: Investigating age differences in reasons for separation

	Job ended by:							
	Promotion		Quit		Layoff		Temporary job	
Variable	Men	Women	Men	Women	Men	Women	Men	Women
Previous spell unemployed	-0.409	-0.320	0.288	0.408	1.376	1.423	1.107	1.046
	(0.166)	*(0.193)*	*(0.223)*	*(0.200)*	*(0.199)*	*(0.270)*	*(0.204)*	*(0.240)*
Previous spell inactive	-0.898	-0.389	0.723	0.557	0.052	0.377	0.129	0.360
	(0.333)	*(0.173)*	*(0.271)*	*(0.135)*	*(0.498)*	*(0.321)*	*(0.388)*	*(0.219)*
Duration of previous unemployment (months)	0.005	-0.002	-0.038	-0.036	-0.046	-0.033	-0.077	-0.038
	(0.012)	*(0.024)*	*(0.018)*	*(0.030)*	*(0.016)*	*(0.034)*	*(0.021)*	*(0.032)*
Age[a]:								
Aged under 25	0.719	0.549	0.221	0.618	1.077	1.732	0.204	-0.218
	(0.224)	*(0.200)*	*(0.324)*	*(0.236)*	*(0.349)*	*(0.419)*	*(0.395)*	*(0.493)*
Aged 25-34	0.177	0.385	0.007	0.137	0.047	0.020	-0.077	-0.485
	(0.179)	*(0.175)*	*(0.248)*	*(0.200)*	*(0.268)*	*(0.391)*	*(0.305)*	*(0.429)*
Aged 35-44	-0.018	0.212	-0.013	-0.126	0.187	0.398	0.047	-0.136
	(0.209)	*(0.204)*	*(0.290)*	*(0.229)*	*(0.333)*	*(0.450)*	*(0.394)*	*(0.469)*
Aged 45-54	-0.435	-0.105	-0.394	0.037	0.342	1.044	0.558	-0.351
	(0.237)	*(0.252)*	*(0.316)*	*(0.249)*	*(0.326)*	*(0.473)*	*(0.342)*	*(0.469)*
Aged under 25*								
Previously unemployed	-0.095	-0.195	0.316	-0.088	-0.423	-0.862	-0.148	-0.219
	(0.210)	*(0.265)*	*(0.292)*	*(0.238)*	*(0.282)*	*(0.388)*	*(0.296)*	*(0.312)*
Previously inactive	0.759	-0.159	-0.147	0.046	-0.240	-0.968	0.645	-0.358
	(0.427)	*(0.327)*	*(0.441)*	*(0.229)*	*(0.736)*	*(0.555)*	*(0.489)*	*(0.420)*
Duration of previous unemployment	-0.024	-0.009	-0.023	-0.039	-0.072	-0.066	-0.043	-0.030
	(0.008)	*(0.008)*	*(0.014)*	*(0.012)*	*(0.021)*	*(0.028)*	*(0.017)*	*(0.018)*
Log-likelihood	-3707	-3794	-2209	-3520	-1595	-893	-1965	-1962
χ^2	406	335	193	352	308	241	284	243
Prob > χ^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Number of observations	2305	2360	2305	2360	2305	2360	2305	2360
Censored observations (%)	75	76	85	77	89	94	88	88

Notes: Includes all variables as in Table 9. Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. Promoted includes internal promotions with the same employer and moves to better jobs. Quit includes retirement, health reasons, left to have a baby, look after family or other person. Layoff includes dismissals and redundancies. [a] Aged 55 and over is the reference category. Jobs in agriculture excluded.

Table 12: Investigating age differences in subsequent labour market status

	Employment		Job followed by Unemployment		Inactivity	
Variable	Men	Women	Men	Women	Men	Women
Previous spell unemployed	0.191	0.205	1.062	1.341	0.882	0.030
	(0.110)	*(0.139)*	*(0.184)*	*(0.246)*	*(0.447)*	*(0.319)*
Previous spell inactive	-0.432	-0.069	-0.107	-0.300	1.994	0.961
	(0.238)	*(0.108)*	*(0.396)*	*(0.331)*	*(0.449)*	*(0.172)*
Duration of previous unemployment (months)	-0.021	-0.036	-0.063	-0.036	-0.072	0.020
	(0.009)	*(0.020)*	*(0.019)*	*(0.024)*	*(0.033)*	*(0.032)*
Age[a]:						
Aged under 25	0.683	0.680	0.933	0.240	-1.108	0.512
	(0.188)	*(0.175)*	*(0.279)*	*(0.528)*	*(0.574)*	*(0.392)*
Aged 25-34	0.244	0.236	0.284	-0.388	-1.613	-0.061
	(0.149)	*(0.151)*	*(0.215)*	*(0.441)*	*(0.439)*	*(0.349)*
Aged 35-44	0.214	0.235	0.323	-0.406	-2.364	-0.561
	(0.173)	*(0.170)*	*(0.293)*	*(0.515)*	*(0.524)*	*(0.393)*
Aged 45-54	0.068	0.118	0.292	-0.143	-1.320	-0.080
	(0.185)	*(0.196)*	*(0.313)*	*(0.561)*	*(0.420)*	*(0.396)*
Aged under 25*						
Previously unemployed	-0.042	-0.018	-0.304	-0.657	0.207	-0.231
	(0.166)	*(0.185)*	*(0.252)*	*(0.349)*	*(0.575)*	*(0.411)*
Previously inactive	0.336	-0.227	0.774	-0.051	-1.154	-0.048
	(0.325)	*(0.224)*	*(0.481)*	*(0.568)*	*(0.681)*	*(0.314)*
Duration of previous unemployment	-0.026	-0.024	-0.061	-0.049	0.003	-0.024
	(0.007)	*(0.007)*	*(0.018)*	*(0.025)*	*(0.020)*	*(0.013)*
Log-likelihood	-6458	-6757	-2195	-1444	-538	-1652
χ^2	435	420	355	312	215	266
Prob > χ^2	0.000	0.000	0.000	0.000	0.000	0.000
Number of observations	2305	2360	2305	2360	2305	2360
Censored observations (%)	57	57	86	91	96	89

Notes: Includes all variables as in Table 9. Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. [a] Aged 55 and over is the reference category. Jobs in agriculture excluded.

Table 13: Investigating gender differences in reasons for separation

	Job ended by:			
Variable	Promotion	Quit	Layoff	Temporary job
Female	0.001	0.344	-0.386	0.108
	(0.082)	*(0.112)*	*(0.192)*	*(0.166)*
Previous spell unemployed	-0.304	0.506	1.390	1.219
	(0.124)	*(0.154)*	*(0.163)*	*(0.161)*
Previous spell inactive	-0.344	0.569	-0.087	0.523
	(0.190)	*(0.205)*	*(0.365)*	*(0.236)*
Duration of previous unemployment spell (months)	-0.005	-0.050	-0.060	-0.090
	(0.012)	*(0.017)*	*(0.017)*	*(0.021)*
Female *				
Previously unemployed	-0.066	0.036	-0.147	-0.189
	(0.202)	*(0.218)*	*(0.258)*	*(0.250)*
Previously inactive	-0.131	-0.013	0.081	-0.285
	(0.241)	*(0.232)*	*(0.445)*	*(0.292)*
Duration of previous unemployment spell (months)	-0.131	-0.006	-0.004	0.047
	(0.241)	*(0.034)*	*(0.037)*	*(0.036)*
Log-likelihood	-8334	-6347	-2791	-4354
χ^2	622	501	515	450
Prob > χ^2	0.000	0.000	0.000	0.000
Number of observations	4665	4665	4665	4665
Censored observations (%)	75	81	91	88

Notes: Includes all variables as in Table 9. Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. Promoted includes internal promotions with the same employer and moves to better jobs. Quit includes retirement, health reasons, left to have a baby, look after family or other person. Layoff includes dismissals and redundancies. Jobs in agriculture excluded.

Table 14: Investigating gender differences in subsequent labour market status

Variable	Employment	Job followed by Unemployment	Inactivity
Female	0.047	-0.277	1.104
	(0.070)	*(0.161)*	*(0.218)*
Previous spell unemployed	0.286	1.151	1.040
	(0.090)	*(0.142)*	*(0.277)*
Previous spell inactive	-0.230	0.381	1.564
	(0.151)	*(0.220)*	*(0.308)*
Duration of previous unemployment spell (months)	-0.030	-0.081	-0.073
	(0.010)	*(0.019)*	*(0.029)*
Female *			
Previously unemployed	0.015	0.121	-0.997
	(0.139)	*(0.232)*	*(0.371)*
Previously inactive	0.088	-0.756	-0.663
	(0.178)	*(0.345)*	*(0.334)*
Duration of previous unemployment spell (months)	-0.019	0.023	0.087
	(0.024)	*(0.031)*	*(0.042)*
Log-likelihood	-14649	-4037	-2400
χ^2	710	569	474
Prob > χ^2	0.000	0.000	0.000
Number of observations	4665	4665	4665
Censored observations (%)	57	88	93

Notes: Includes all variables as in Table 9. Results of Cox proportional hazard model. Robust standard errors in parenthesis. Only spells starting after the Wave 1 date of interview included, and spells experienced by men aged under 65 and women aged under 60. Jobs in agriculture excluded.

Appendix

Variable Means and Standard Deviations

Variable	Men		Women	
	Mean	Standard deviation	Mean	Standard deviation
Previous spell unemployed	0.287		0.177	
Previous spell economic inactivity	0.063		0.161	
Duration of previous spell if unemployed (months)	1.805	5.106	0.832	3.068
Age:				
Aged under 25	0.357		0.307	
Aged 25-34	0.301		0.334	
Aged 35-44	0.216		0.257	
Aged 45-54	0.123		0.128	
Non-white	0.042		0.034	
Marital Status:				
Married	0.583		0.647	
Widowed/divorced	0.047		0.085	
Spouse working	0.429		0.573	
Has dependent Children	0.333		0.427	
Highest Qualification:				
Degree	0.141		0.149	
A Levels or equivalent	0.431		0.388	
O Levels or equivalent	0.228		0.239	
Other qualifications	0.090		0.099	
Region:				
London	0.111		0.097	
Rest of the South East	0.210		0.233	
Has prior experience of:				
Unemployment	0.503		0.347	
Part-time work	0.117		0.456	
Self-employment	0.165		0.064	
Type of employment:				
Part-time job	0.068		0.353	
Self-employment	0.093		0.039	
Public sector job	0.105		0.219	
Manual Job	0.490		0.311	
Industry:				
Energy	0.013		0.009	
Extraction	0.037		0.020	
Metal goods	0.128		0.040	
Light manufacturing	0.120		0.067	
Construction	0.076		0.008	
Transport	0.078		0.038	
Banking and finance	0.142		0.162	
Other services	0.170		0.358	
Firm size < 25 employees	0.334		0.406	
Local unemployment rate (x100)	7.206	2.952	7.178	2.929
Number of observations	2305		2360	