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Should I Stay or Should I Go? The Effect of Gender, Education and Unemployment on Labour Market Transitions

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Introduction

The literature on job mobility patterns and search behaviour has highlighted significant gender differences. Women on average appear to suffer a higher risk of redundancy or dismissal, they exhibit a lesser commitment to the labour market activity, and they are relatively less mobile than men (Theodossiou, 2002). They are also more likely to exit employment for employee-initiated reasons, namely a family or personal reason, in contrast to men who are more likely to exit employment for an employer-initiated reason such as layoff or dismissal (Keith and McWilliams, 1997). However, although women are more likely to exit employment for a voluntary reason compared to men, men are more likely to be engaged in on-the-job search aiming at voluntary job mobility compared to women (Parson, 1991; van Ophem, 1991; Keith and McWilliams, 1999). The primary reason for these gender differences in the labour market behaviour are the societal constraints associated with women's dominant role in childcare. Hersch and Stratton (1997) show that women, especially married women, spend three times more time engaged in household activities and are substantially more prepared to quit their job for a family-related reason than men are (Keith and McWilliams, 1997; Theodossiou, 2002).

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This paper re-examines the turnover behaviour of men and women using panel data from six European countries. It makes a distinction between job-to-job (JJ) and job-to-non-employment (JNE) transitions, and explores the role that education and macroeconomic factors, like labour market tightness, play in gender differences regarding these mobility patterns.

The distinction between JJ transitions and JNE transitions is very important. If JJ transitions are the outcome of job search activity when one is employed, then the JJ turnover can be interpreted as a wage-increasing and job-match search behaviour. In contrast, JNE transitions may be an involuntary loss of employment either due to a layoff or dismissal or due to an employee-initiated exit to non-employment for family or personal reasons (Royalty, 1998). Differences in the JJ and JNE mobility patterns may therefore be important in understanding gender wage differences. Keith and McWilliams (1995) argue that different types of prior mobility have different effects on subsequent wage levels.

Furthermore, distinguishing between JJ turnover and JNE transitions is important from the human capital point of view. Individuals accumulate skills and knowledge at work in the form of general and/ or specific human capital which has a positive effect on wages. In turn, differences in human capital do explain wage gaps. The effect of human capital investment on earnings depends on the overall length of time spent in employment. Therefore, JNE transitions are related to wages, since JNE turnover does interrupt the accumulation of human capital, while JJ transitions do not. All in all, the understanding of the determinants of the individuals' mobility behaviour and turnover patterns is important for the assessment of the likelihood of an individual' success in the labour market.

It is likely to be a positive association between education and JJ mobility because individuals with higher levels of education may have more opportunities available to them or individuals who are willing to move frequently between jobs may be able to obtain higher levels of education since the opportunity to change jobs in the form of a promotion can be viewed as an incentive for individuals to make investments in their own education. As Johnson (1979) has shown, when there is a high likelihood of job mobility, the demand for education is higher. However, JJ turnover is likely to be

higher for individuals with higher levels of education who are offered wider but also better paid opportunities. Moreover, workers who are better educated may have higher likelihood to receive job offers which offer better training and other incentives. This reduces the individual's incentive to leave his or her job. Educational attainments affect both the mobility cost and opportunity cost. These costs may be different for male and female workers. Therefore, one may expect to observe different mobility and turnover patterns with education by gender. Disaggregating the sample by education and gender may shed light on the effect of education on male-female differentials regarding job quit rates.

The study here uses data from the European Community Household Panel on six European countries (UK, France, Germany, Finland, Greece and Spain). This multinational micro-level data comes from a single survey which facilitates the pooling of data from the different EU countries in a way that the effect of macroeconomic conditions on individual's mobility patterns and turnover behaviour can be studied. The findings of this paper suggest that there are gender differences in the job mobility patterns, with men being more mobile across jobs and women exhibiting higher exit to non-employment. Education is also found to be important on turnover decisions, primarily for women. Finally, labour market tightness, approximated by the unemployment rate, is estimated to reduce mobility across jobs.

Methodology

The paper aims at estimating the turnover patterns of men and women and exploring differences in their mobility behaviour. Although, this can be done empirically by duration models and discrete choice models Royalty (1998) proposes that one of the major advantages of the discrete choice model is that the interpretation of the estimated coefficients on event probabilities is easier and the results are more accessible to individuals who may want to formulate labour market policies. Following Royalty, this paper estimates the transition probabilities by gender using a multinomial logit model.

Let's denote p_{1i} the probability of moving to a new job, p_{2i} the probability of moving to non-employment and p_{3i} the probability of staying in the same job. From this the following three transition equations are specified:

$$\log\left(\frac{p_{1i}}{1-p_{1i}}\right) = \beta_1 X_{it} + \varepsilon_{1it} \qquad (1)$$

$$\log\left(\frac{p_{2i}}{1-p_{2i}}\right) = \beta_2 X_{it} + \varepsilon_{2it} \qquad (2)$$

$$\log\left(\frac{p_{3i}}{1-p_{3i}}\right) = \beta_3 X_{it} + \varepsilon_{3it} \qquad (3)$$

The regressors vector X_{1i} includes variables such as individual and household characteristics and macroeconomic indicators, which are the same for all three alternatives, while the coefficients β_1, β_2 and β_3 do vary for the three possible states. The coefficients therefore indicate how a particular variable affects the probability of a transition.

Men traditionally are faced with different work-family balance choices compared to women. If this is an outcome of social and cultural norms which impose constraints to women on these choices, then there should be differences between men and women regarding the labour market transitions described by the transition models above, and particularly regarding the JNE transition (equation 2). Furthermore, in the case of married couples, women are often assuming the status of the secondary earner in the household. As Royalty (1998) argues this implies that there are omitted factors (associated with women's household responsibilities and child-bearing role) that although should be included in the women's turnover model, they are unimportant for such models applied to male samples. Thus, if men adopt different roles and responsibilities compared to women then, when estimation is carried out separately by gender, the omitted variable bias becomes important.

Royalty (1998) highlights the importance of disaggregating not only by gender but also by education. According to her findings, if the disaggregation is solely by gender, then the difference between less educated women and the remainder is not accounted for. Therefore, in this study the three transition equations above are estimated for four groups: men with less than high school education, men with high school or above education, women with less than high school education, and women with high school or above education.

Data

The data used in this study come from the European Community Household Panel (hereafter ECHP) survey. The ECHP is based on an annual standardised survey of a representative panel of households and individuals in each member state country covering a wide range of topics: income, health, education, housing, demographics and employment characteristic, etc. The ECHP is a unique source of information, because of its (i) multi-dimensional coverage of a range of topics simultaneously; (ii) standardised methodology and procedures yielding comparable information across countries; and (iii) panel design in which information on the same set of households and persons is gathered to study changes over time at the micro level.

For the purpose of the analysis, the eight available waves from 1994 to 2001 for United Kingdom, France, Germany, Finland, Spain and Greece are used. There are a total of 425628 observations, of which 73977 are from the UK, 73254 from France, 98109 from Germany, 33377 from Finland, 83725 from Spain and 63188 from Greece. For the estimation of the transition probabilities of interest a set of personal and job related characteristics are included in the estimated equations., ***Tables A1*** and ***A2***, in the Appendix, report the description and the summary statistics of all the variables used in the empirical analysis.

Since ECHP has a panel dimension, an individual's labour market transitions can be obtained from year to year over the duration of the survey. The three types of mobility pattern on which this study focuses are the transitions from job-to–job (JJ), job-to-non-employment (JNE) and staying inn the same job (SJ). Individuals who are in the

age range 20-65 are included. This is important as one can observe the retirement patterns of men and women, as captured by the JNE transitions.

Figures 1 and 2 show the average annual JJ and JNE turnover by job tenure and labour market experience. ***Figure 1*** shows that as tenure increases the probability of an individual changing job exhibits a sharp decline for roughly the first years. For the job-matches that survive the first year, the JJ probability falls steeply in the second year and remains very close to zero thereafter. This pattern is also observed in the case of experience but, in this case the decline is gradual as the level of experience increases. This may imply that increasing experience in the labour market offers individuals the knowledge to be able to find better jobs that are likely to last longer. It also may imply that the transition rate declines with increasing age as the individual's job offers and job opportunities decrease. Donohue (1998), Farber (1994) and Omori (1995) show that the JNE-tenure profile is "U-shaped". This is confirmed by ***Figure 2*** which shows that the JNE-experience profile is also "U-shaped"[1].

Table 1 summarises the average JJ, JNE and SJ transition probabilities, derived from the raw data turnover patterns, for each of the six countries for men and women. Employed men have roughly 90 percent chance of remaining in the same job from year to year, and 10 percent probability of moving to another job or exiting to non-employment. In contrast, women exhibit a slightly higher exit rate to non-employment than men and a lower JJ turnover probability. The only exception is UK, where both men and women appear to be more mobile across jobs. Distinguishing between turnover destinations (JJ and JNE) may be important in understanding mobility patterns by gender, since separation probabilities may hide valuable information.

Education is an important dimension across which turnover patterns may vary. In this study the individual's mobility behaviour is examined not only by gender, but also by gender and education. In particular, the sample is divided into four groups: (1) females with less than high school education (*LHSF*), (2) females with higher than high school education (*GHSF*), (3) males with less than high school education (*LHSM*), and (4) males with higher than high school education (*GHSM*). The different

[1] The large variations of JNE turnover probability at high levels of tenure may be due to the fact that there are relatively few individuals with 20 years of tenure or above in this sample.

turnover patterns found across these four groups appear to justify this disaggregation of the sample.

Average Turnovers Gender and Education

The average JJ turnover probability by experience is shown in ***Figure 3.1*** which exhibits a downward sloping profile. During the first years of working experience the JJ probability pattern for men is higher than that of women. These differences become less clear only after 20 or more years of working experience. The opposite is observed for the average JNE transition probability by age in ***Figure 3.2***. Women exhibit a higher JNE turnover than men almost universally for all ages. The JNE turnover age profile is flat until the age of 50 to 55. After this age the profile slopes steeply upward probably because progressively more people retire.

Figure 3.3 shows that the percentage of individuals who retain the same job rises sharply during the first couple of years in the job. More than 90 to 95 percent of the job matches that endure this screening process appear to last for at least 15 to 20 years. A higher percentage of men appear to retain in the job after the first two years compared to women though the difference appears to be minor. This confirms Royalty's (1998) findings that the differences in the JJ and JNE turnover probabilities between men and women appear to offset each other. Hence similar job retention patterns are observed. Thus, examining the job separation probability without making a distinction in the turnover destination would overlook valuable information regarding the mobility behaviour and turnover differences between men and women.

Regression Estimates

This study aims to investigate the effect of labour market macroeconomic factors, namely labour market tightness as proxied by the unemployment rate, on gender differences in turnover decisions. Unemployment rate has always played an important role in explaining job transition patterns (Blau and Kahn, 1981; Booth and Francesconi, 1999; Booth et *al.*, 1999; Campbell, 1997; and van Ours, 1990). Economic theory suggests that there is an inverse relationship between job turnover

rates and unemployment. Van Ours (1990) estimates that a 1 percent increase in the unemployment rate results in a decrease in the JJ mobility of 0.5 percent. ***Table 2*** reports the variation in the unemployment rate for the period 1994-2001 for the six countries under consideration. Since the inclusion of the unemployment rate in country-specific equations cannot provide sufficient information, due to limited unemployment rate variation, a multinomial logistic model on individuals' mobility behaviour, based on a pool sample from the 6 countries of interest for the period 1994-2001 is estimated.

The JJ and JNE transition probabilities are obtained from a multinomial logistic regression. Since the same group of individuals is observed several times over the period 1994-2001 the methodology used allow for the observations to be independent across individuals but not necessarily within individuals. The dependent variable takes the value 0 for someone remaining in the same job, 1 for moving to another job and 2 for moving into non-employment. An important assumption of the multinomial logit model is that the unobserved attributes of all the alternatives (of the dependent variable) are perceived as equally similar. This is known as the Independence of Irrelevant Alternatives (IIA) assumption. Hence IIA tests are performed separately for all four education-gender groups, and the results provided satisfy the IIA assumption. The regressors vector used in the estimation of the mobility patterns includes first, controls for personal characteristics (age, gender, marital status, presence of children in the household, education and health status), second job related variables (the individual's personal earned income, the number of working hours, the accumulated job tenure and the general labour market experience, and variables capturing the individual's occupation and industrial sector) and third, the unemployment rate. Country dummy variables are also included in the model in order to capture the potential differences in institutional regulations or social norms across-countries and highlight their importance in turnover transitions.

The coefficients of the estimated multinomial logit model on JJ and JNE transitions are reported but not discussed in ***Tables A3*** and ***A4*** respectively. Based on these estimates, the JJ and JNE transition probabilities are then evaluated for the explanatory variables of interest (relationship status, children present in household, personal income, unemployment rate and country of residence) in ***Table 3***. The

estimates are obtained by holding all other variables at their group mean values and allowing the explanatory variable of interest to change.

The effect of unemployment rate on the transition probabilities is calculated using the predicted turnover probabilities at the actual level of the unemployment rate, as well as for an increase in unemployment rate by 1 percent. The focus is to assess how individuals respond to changes in the unemployment rate, and whether they adjust their job mobility behaviour. Overall, the findings suggest that although market demand factors, as captured by the unemployment rate, do affect individuals' decisions to move from one job to another, it does not influence their exit to non-employment rates. Particularly, it is found that 1 percent increase in the unemployment rate reduces the JJ turnover probability for all four groups by around 2 percent[2]. However, JNE transition probabilities are not affected by changes in the unemployment rate. JNE transitions compose of voluntary and involuntary movements to non-employment. Involuntary movements, like layoffs, are expected to be more responsive to business cycle and positively associated to the unemployment rate. Voluntary movements are less likely to be determined by market factors. Since the dataset used cannot provide information on the nature of job separation, the fact that JNE turnover is not affected by the unemployment rate may reflect the prevalence of voluntary movements in the JNE transitions.

Household characteristics do not seem to affect men's JJ turnover probabilities, whereas women appear to adjust to increased household duties (proxied by the relationship status and the presence of children in the household) by lowering their JJ transitions. Regarding the JNE turnover patterns, men, married or living with a partner, exhibit a reduced probability of exiting to non-employment which may reflect their status as primary earners of the household. This behaviour is not affected by the presence of children in the household. In contrast, women exhibit a higher probability to exit to non-employment when children are present in the household. This reflects women's dominant role in childcare. Personal income does not appear to influence individuals' JJ transition probabilities, but it reduces the probability of exiting to non-employment, especially for low-educated men and women. Also, the predicted JJ and

[2] This is calculated as the difference between the first two rows in ***Table 3***.

JNE turnover probabilities for the country dummy variables overall reflect the observed transition probabilities derived from the raw data in ***Table 1***.

Overall, education is estimated to be positively associated with JJ mobility and negatively with the probability of exiting to non-employment for both men and women. Men compared to women are also found to be more mobile across jobs and to have lower probability to exit to non-employment, probably due to their higher level of attachment to the labour market and their role as primary income earners in the household.

Tests for Equality of Turnover Probabilities

The above discussion highlights the diverse turnover patterns that men and women of different educational status exhibit. In order to confirm this observation, tests for the equality of the estimated turnover probabilities are performed. In particular, the coefficients from the estimated multivariate logistic regressions are used to calculate the transition probabilities, evaluated at the mean values of each gender-education group. The derived transition probabilities reveal how the turnover of each group compares with others given the characteristics that workers currently posses[3]. A two-sample t-test is used to test whether or not the transition probabilities estimated for each group are the same. Rejection of the null hypothesis suggests that the two groups examined exhibit different turnover patterns. The results of the performed two tailed tests are presented in ***Table 4***. Consistently, all equality tests performed for the different turnover probabilities patterns are rejected. This justifies the performed disaggregation of the sample.

It would also be interesting to isolate all existing structural labour market differences and estimate the turnover probabilities that women would exhibit if they faced the entire wage distribution of men. Following Royalty's (1998) approach, ***Table 4*** *(second part)* presents the estimated transition probabilities evaluated at the mean value of the group of high-educated men. Although, this is not the same to replacing

[3] As Barron et al. (1993) suggests evaluating the probabilities at the same means for each group is not very useful because once wages and other characteristics are controlled for, no turnover differences are expected.

women's wage distribution with men's, it is a relatively good approximation. Interestingly, educational or gender differences still persist in the job mobility and turnover probabilities when all probabilities are evaluated at the means of the high-educated men, with all the equality tests between the various estimated probabilities being rejected. However, compared to the former tests presented in the first part of the table (when mobility probabilities were estimated at the corresponding group means), the tests here have almost uniformly much lower statistical significance. The lower t-tests may indicate that only a small part of the different mobility patterns can actually be attributed to differences in the distribution of characteristics between these four groups of individuals. Nevertheless, the most considerable part of these probability differences is still explained by educational and gender differences.

Estimated Transition Probabilities

The estimated JJ and JNE transitions with respect to tenure are illustrated in ***Figure 4***. As the employee's tenure increases, the probability of moving to another job diminishes smoothly for both men and women and all educational levels. By the time tenure reaches twenty years, the JJ transition probability converges for all educational groups to approximately 1 to 2 percent. Differences in the JJ turnover patterns are observed in the first few years of tenure. Women with low education appear to have the lowest JJ probability for at least the first 5 to 6 years of tenure. Highly educated men exhibit the highest probability of a JJ transition among all other groups for at least the first 14 years of tenure. Interestingly, although highly educated women show higher JJ transition probability compared to lesser educated males for the first five years of tenure, the probability of a JJ transition for the latter group is higher thereafter.

The JNE-tenure profiles for the four gender-education groups suggest that as individuals acquire seniority in their current job they are less likely to exit-to-non employment. This is in line with the predictions of the standard human capital theory, that says that the firm-specific skills workers acquire over the years make them more valuable to their employers, hence less likely to loss their job, and also less likely to quit their jobs, since in that case workers will forfeit any wage premia associated with

these firm-specific skills. Furthermore, the plotted profiles show that less educated women are more likely to exit to non-employment compared to all other three groups, whereas high-educated men exhibit the lowest probability of exiting to non-employment.

Figure 5 shows the JJ transition probabilities with respect to experience for all four gender-education groups. In general, the probability diminishes as the level of experience increases. Females with less than high school education exhibit consistently the lowest JJ – experience transition profiles. This suggests that low educated women may not actively search for a job while in employment. For at least the first 20 first years of experience higher educated women also exhibit lower JJ transition probabilities compared to men. Men in the highest educational group exhibit uniformly the highest JJ transition – experience profile. The above findings confirm the view of Parsons (1991), van Ophem (1991) and Keith and McWilliams (1999) who find that there are gender differences in the search behaviour, with men engaging more actively in job search compared to women.

The JNE – experience turnover profiles are in sharp contrast the JJ transitions and exhibit a U-shape profile, in line with Royalty (1998). Although there is a minor tendency for the probability of exiting to non-employment to be highest for the individuals with the lowest experience this is much less important compared to the JJ transitions. The profiles are flatter and increase towards the higher experience, probably capturing the individuals' exit to retirement. Overall, women with less than high school education are the most likely to exit into non-employment at all levels of experience in contrast to men in the highest educational group who are the least likely to withdraw from the labour market.

Conclusion

This paper examines the turnover behaviour of men and women in six European countries for the period 1994-2001. Following Royalty's (1998) approach, the sample is disaggregated in four groups by gender and education and a distinction is made on the destination of job mobility, by investigating separately the JJ turnover and JNE turnover patterns. The empirical findings support this approach. Although men and

women exhibit overall similar job separation patterns, when the turnover destination is examined men appear to be more mobile across jobs whereas women are more likely to exit to non-employment. In addition, education is estimated to have a significant impact on turnover decisions, primarily for women. Low educated women have lower JJ transition probabilities but are more likely to exit to non-employment compared to the other groups, high educated women and men of both educational categories. These latter three groups have similar mobility behaviour, although high-educated men in some cases display higher JJ mobility and lower JNE turnover probability. Furthermore, labour market factors, like the unemployment rate, affect the JJ transition probability, but do not influence the exit to non-employment. The estimates suggest that 1 percent increase in unemployment rate lead to a 2 percent decrease in the JJ turnover probability.

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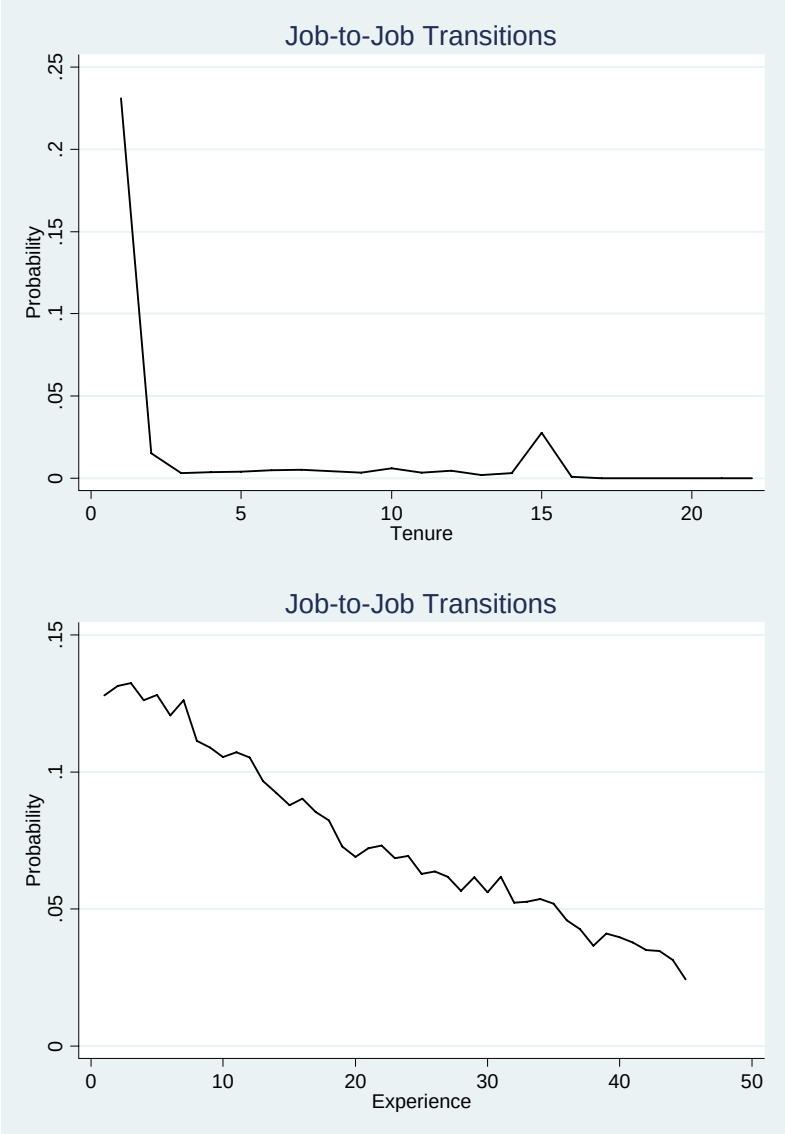
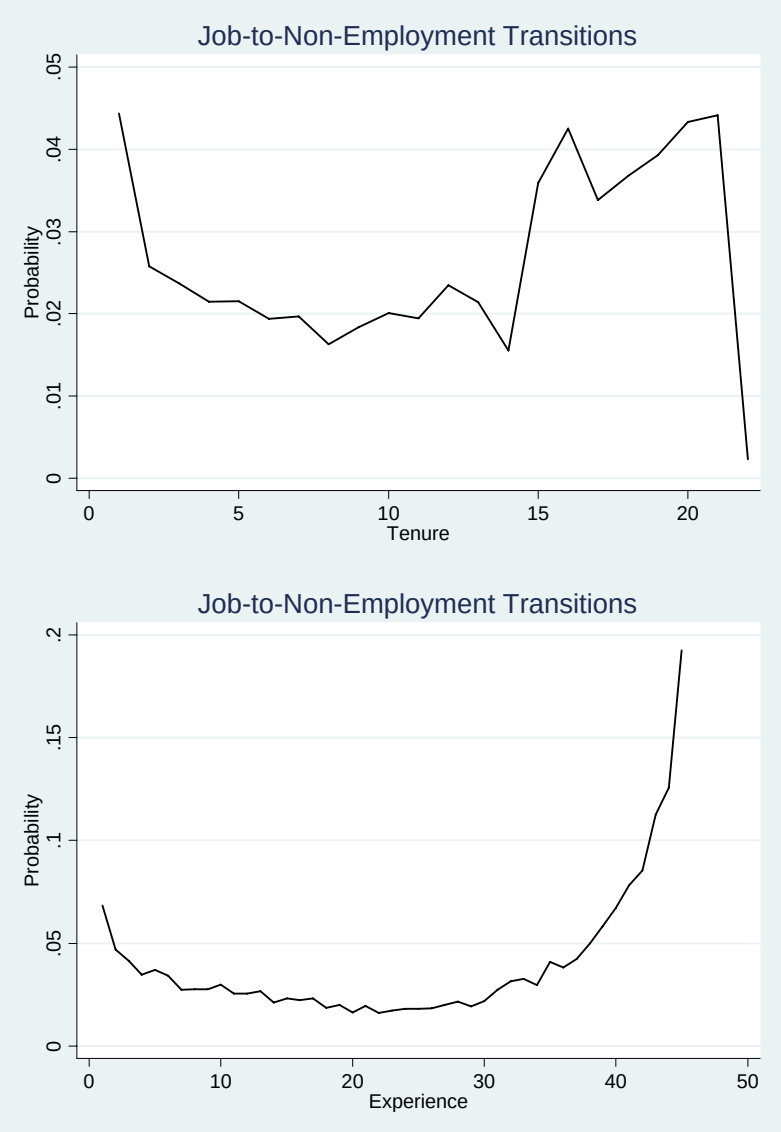
Figure 1: **JJ Transitions by Tenure and Experience**



Note: Based on raw data calculations

***Figure 2*: JNE Transitions by Tenure and Experience**



Note: Based on raw data calculations

Figure 3.1: **JJ Transitions by Experience and Gender**

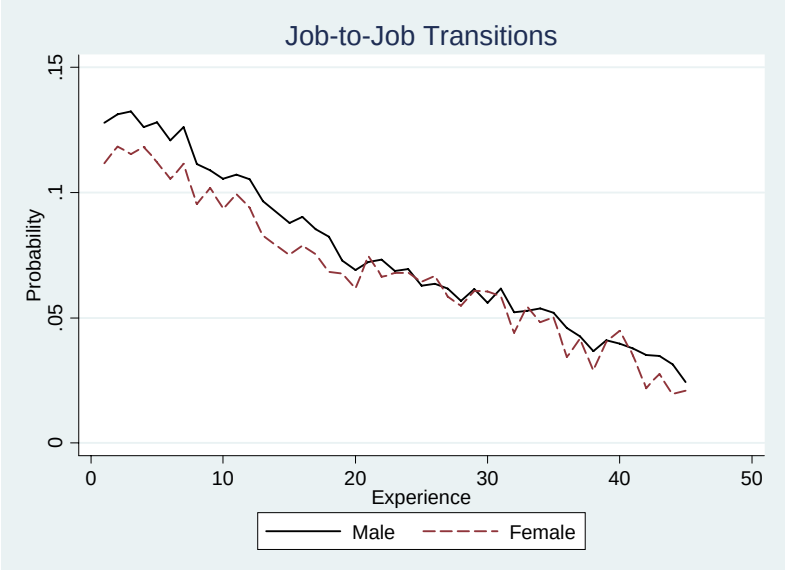


Figure 3.2**: JNE by Age and Gender**

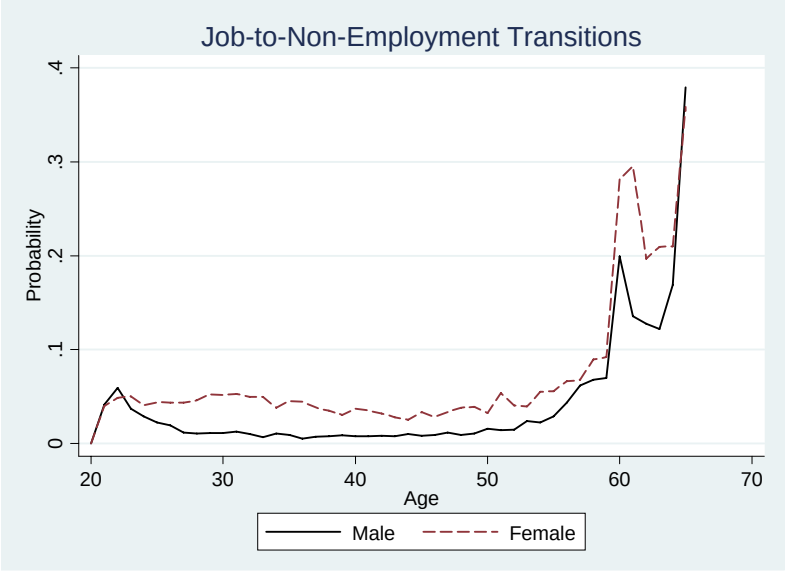
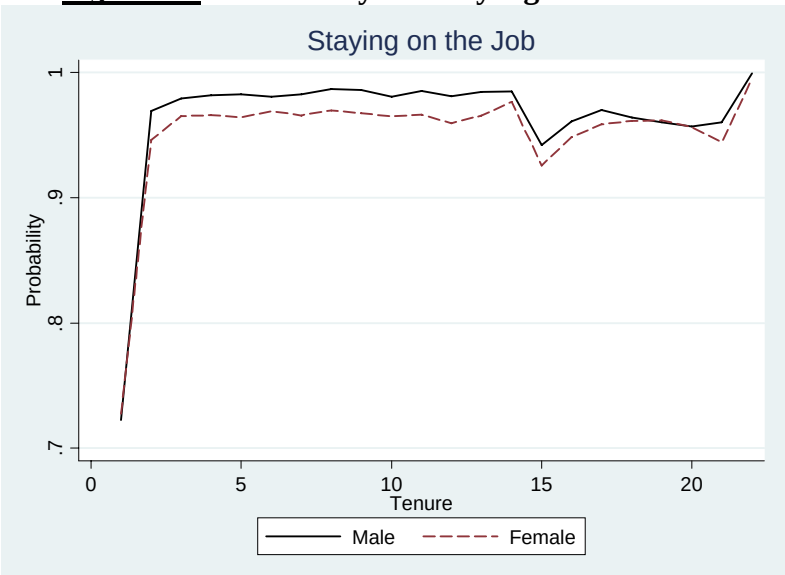
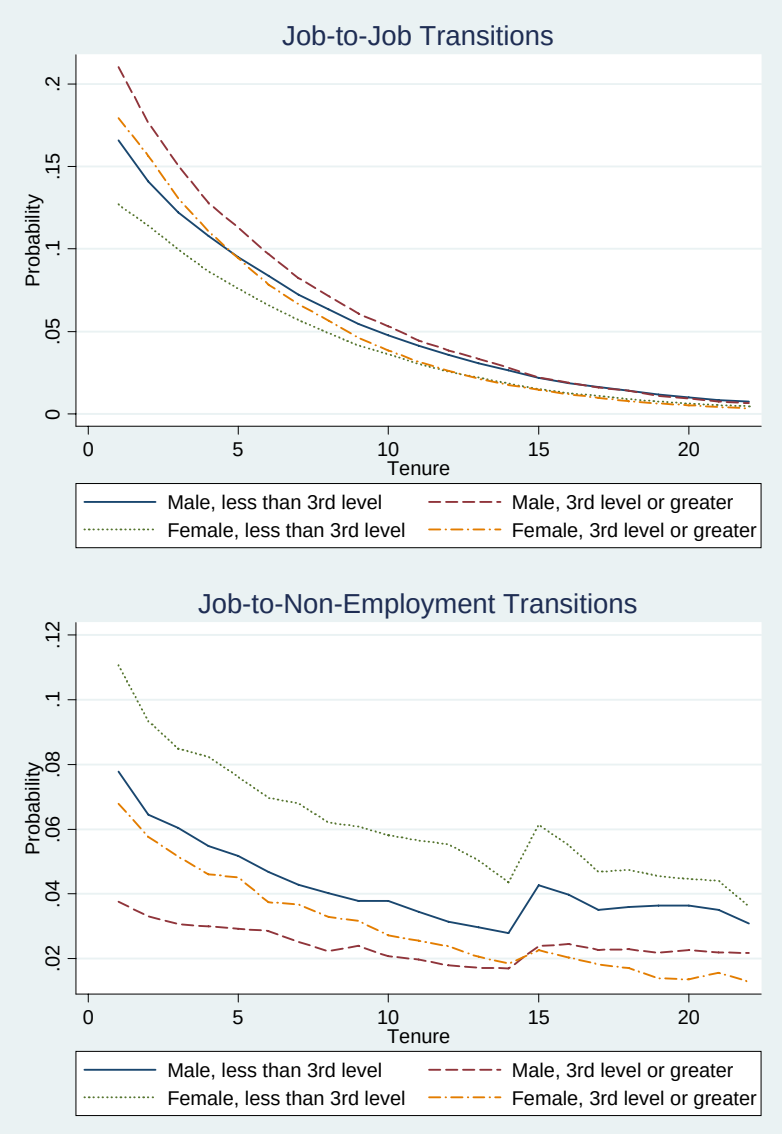


Figure 3.3**: Probability of SJ by Age and Gender**



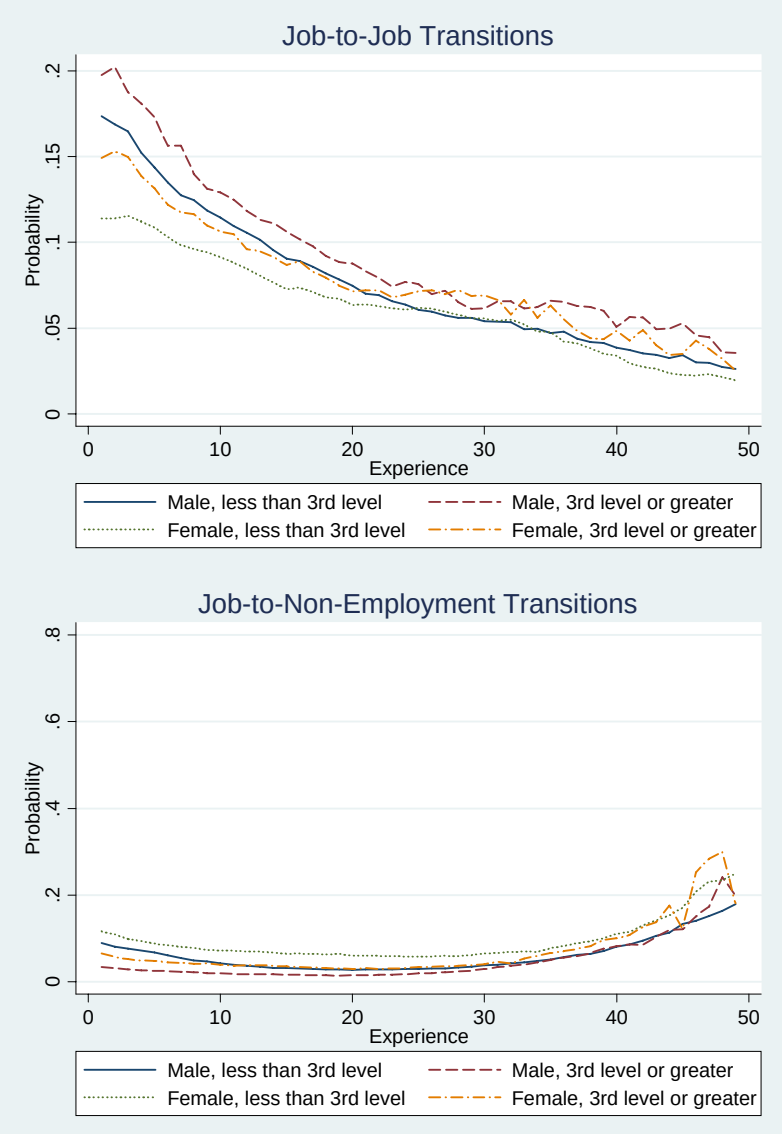
Note: Based on raw data calculations

***Figure 4*: JJ and JNE Transitions by Tenure, Gender and Education**



Note: Based on multinomial logit estimates, reported in ***Tables A3 and A4***.

***Figure 5*: JJ and JNE Transitions by Experience, Gender and Education**



Note: Based on multinomial logit estimates, reported in ***Tables A3 and A4***.

Table 1

Transition Probabilities by Gender

	Males			Females		
Transitions:	**SJ**	**JJ**	**JNE**	**SJ**	**JJ**	**JNE**
UK	78.41	17.06	4.53	77.81	14.71	7.48
France	90.10	5.63	4.27	88.99	4.96	6.06
Germany	86.79	7.59	5.62	84.19	7.98	7.83
Finland	92.60	4.20	3.20	91.70	3.60	4.70
Spain	89.61	5.18	5.20	87.83	4.65	7.52
Greece	89.24	4.91	5.84	85.34	4.57	10.09

Note: SJ: staying on the same job; JJ: job-to-job transitions; JNE: job-to-non-employment transitions. Figures derived from own calculations on data sample used.

Table 2

	Unemployment Rate							
	1994	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
UK	9.4	8.5	8.0	6.9	6.2	5.9	5.4	5.0
France	11.7	11.1	11.6	11.5	11.1	10.5	9.1	8.4
Germany	8.3	8.0	8.5	9.1	8.8	7.9	7.2	7.4
Finland	16.6	15.4	14.6	12.7	11.4	10.2	9.8	9.1
Spain	19.8	18.8	18.2	17.1	15.3	12.9	11.4	10.8
Greece	8.9	9.2	9.6	9.8	10.9	12.0	11.3	10.8

Table 3: Multinomial Logit Estimates on the Pooled Sample

	JJ Transitions				JNE Transitions			
	Male		Female		Male		Female	
	LHS	GHS	LHS	GHS	LHS	GHS	LHS	GHS
Unempl. (actual)	0.091	0.119	0.087	0.113	0.067	0.040	0.107	0.064
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0003)	(0.0003)	(0.0004)	(0.0004)
Unempl. 1% up	0.08	0.10	0.07	0.09	0.06	0.04	0.10	0.06
	(0.0002)	(0.0005)	(0.0002)	(0.0005)	(0.0003)	(0.0003)	(0.0004)	(0.0004)
U.K.	0.09	0.12	0.09	0.11	0.04	0.03	0.07	0.05
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0002)	(0.0003)	(0.0003)	(0.0004)
France	0.07	0.11	0.08	0.10	0.10	0.05	0.15	0.09
	(0.0002)	(0.0005)	(0.0003)	(0.0005)	(0.0003)	(0.0004)	(0.0005)	(0.0005)
Denmark	0.07	0.09	0.07	0.09	0.11	0.04	0.13	0.08
	(0.0002)	(0.0004)	(0.0002)	(0.0004)	(0.0004)	(0.0003)	(0.0004)	(0.0005)
Finland	0.10	0.16	0.10	0.17	0.14	0.06	0.24	0.13
	(0.0003)	(0.0007)	(0.0003)	(0.0008)	(0.0004)	(0.0004)	(0.0006)	(0.0007)
Spain	0.21	0.28	0.24	0.24	0.16	0.08	0.32	0.15
	(0.0005)	(0.0001)	(0.0006)	(0.0001)	(0.0004)	(0.0005)	(0.0005)	(0.0008)
Greece	0.07	0.09	0.06	0.11	0.10	0.05	0.20	0.10
	(0.0002)	(0.0005)	(0.0002)	(0.0005)	(0.0003)	(0.0003)	(0.0006)	(0.0005)
Single	0.09	0.12	0.10	0.11	0.05	0.04	0.07	0.05
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0002)	(0.0003)	(0.0003)	(0.0004)
Couple	0.09	0.12	0.09	0.11	0.03	0.03	0.07	0.05
	(0.0003)	(0.0006)	(0.0003)	(0.0005)	(0.0002)	(0.0003)	(0.0003)	(0.0004)
No Children	0.09	0.12	0.09	0.11	0.04	0.04	0.06	0.04
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0002)	(0.0003)	(0.0003)	(0.0003)
Children	0.09	0.12	0.09	0.11	0.04	0.03	0.07	0.05
	(0.0003)	(0.0006)	(0.0003)	(0.0005)	(0.0002)	(0.0003)	(0.0003)	(0.0004)
Low Income	0.09	0.12	0.09	0.11	0.04	0.04	0.07	0.05
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0002)	(0.0003)	(0.0003)	(0.0004)
High Income	0.09	0.12	0.09	0.11	0.03	0.03	0.05	0.04
	(0.0003)	(0.0006)	(0.0003)	(0.0006)	(0.0002)	(0.0003)	(0.0002)	(0.0003)

Note: **Unempl. (actual)**: Actual annual unemploymenmt rate; **Unempl. 1% up**: when unemployment rate increases by 1 percent; **UK**: United Kingdom; **FR**: France; **DE**: Germany; **FI**: Finland; **ES**: Spain; **GR**: Greece; **Single**: living alone; **Couple**: living as a couple; **No Children**: no children in household; **Children**: 1 to 12 children in household; **Low Income**: 66% of median income; **High Income**: 133% of median income. Estimated transition probabilities at mean values, with standard errors into brackets. Controls for age, health status, working hours, job tenure and labour market experience, occupation and industry sector are also included.

Table 4: Two tailed tests for Equality of Turnover Probabilities

(evaluated at own group means)			
	JJ	**JNE**	**SJ**
LHSM vs GHSM	Reject (-57.97)	Reject (68.93)	Reject (8.47)
LHSM vs LHSF	Reject (21.79)	Reject (-84.93)	Reject (40.89)
LHSM vs GHSF	Reject (-37.83)	Reject (19.24)	Reject (17.48)
GHSM vs LHSF	Reject (72.96)	Reject (-130.00)	Reject (24.00)
GHSM vs GHSF	Reject (13.26)	Reject (-46.99)	Reject (7.95)
LHSF vs GHSF	Reject (-55.79)	Reject (79.26)	Reject (13.25)
(evaluated at GHSM means)			
	JJ	**JNE**	**SJ**
LHSM vs GHSM	Reject (13.37)	Reject (21.92)	Reject (-20.86)
LHSM vs LHSF	Reject (30.10)	Reject (-5.09)	Reject (-24.55)
LHSM vs GHSF	Reject (22.41)	Reject (-9.80)	Reject (-14.77)
GHSM vs LHSF	Reject (15.49)	Reject (-28.10)	Reject (-2.11)
GHSM vs GHSF	Reject (8.64)	Reject (-29.70)	Reject (5.72)
LHSF vs GHSF	Reject (-6.56)	Reject (-5.59)	Reject (8.20)

Note: t-values in parenthesis

Appendix

Table A1

Description of Variables	
Variable	***Description***
Age	Age in years
Age^2	Age squared
Working hours per week	
Total personal income	Total income (PPP adjusted)
Unemployment Rate	
Number of children	Actual number aged 16 or less
Experience (years)	Number of years since individual started first job
Tenure (years)	Number of years in the current job
Living as a couple	0 = no, 1 = married or living as a couple
Senior Management	0 = no, 1 = works as a professional, senior official or manager
Skilled worker	0 = no, 1 = works as a skilled worker, trade or plant / machinery operator
Sales staff	0 = no, 1 = works as a service worker or shop sales worker
Secretarial	0 = no, 1 = works in a secretarial role
Technical or professional	0 = no, 1 = works as a technician or associate professional
In good health	0 = in poor health, 1 = in good health
Agricultural Industry	0 = no, 1 = works in agriculture
Utilities	0 = no, 1 = works in utilities
Manufacturing	0 = no, 1 = works in manufacturing
Non-financial	0 = no, 1 = works in hotel industry, restaurant, motor repairs, retail
Health Industry	0 = no, 1 = works in health, social work, education
Germany	Country dummy variable
France	Country dummy variable
Greece	Country dummy variable
Finland	Country dummy variable
Spain	Country dummy variable

Table A2

Summary statistics							
	Germany	**France**	**United Kingdom**	**Greece**	**Spain**	**Finland**	**All 6 Countries**
Personal characteristics							
Age	43.134	43.277	42.454	44.838	43.350	43.852	43.392
	(12.847)	(13.107)	(12.764)	(13.669)	(13.667)	(12.345)	(13.148)
Male	0.506	0.515	0.527	0.512	0.510	0.499	0.512
Number of children	0.660	0.740	0.729	0.655	0.629	0.772	0.688
	(0.957)	(1.044)	(1.053)	(0.925)	(0.900)	(1.118)	(0.989)
Live as a couple	0.800	0.772	0.757	0.769	0.721	0.800	0.768
Males, less than 3rd level	0.365	0.377	0.275	0.398	0.389	0.363	0.361
Males, greater than 3rd level	0.129	0.108	0.198	0.090	0.100	0.138	0.127
Females, less than 3rd level	0.426	0.396	0.350	0.432	0.416	0.317	0.398
Females, greater than 3rd level	0.080	0.119	0.177	0.081	0.094	0.182	0.114
Second level education	0.563	0.291	0.194	0.274	0.171	0.414	0.321
Third Level education	0.209	0.227	0.375	0.171	0.195	0.320	0.241
In good health	0.561	0.634	0.709	0.814	0.702	0.672	0.673
Work related characteristics							
Working hours per week	39.506	39.687	40.006	43.509	42.384	41.712	40.878
	(13.131)	(11.118)	(14.841)	(13.659)	(13.186)	(12.750)	(13.330)
Total Personal Income (adjusted)	13529.27	14257.38	13531.79	7439.82	8523.30	18160.75	12129.49
	(11898.75)	(15620.43)	(13936.86)	(8989.96)	(10216.09)	(15453.36)	(13034.17)
Tenure	7.401	9.501	5.021	10.142	8.228	9.151	8.014
	(6.409)	(6.967)	(5.369)	(7.230)	(7.150)	(6.667)	(6.824)
Experience	22.593	21.889	21.690	19.176	21.105	23.470	21.584
	(13.489)	(14.917)	(14.107)	(15.451)	(16.188)	(13.057)	(14.718)

Table A2 continued

Table A2 continued

	Germany	France	United Kingdom	Greece	Spain	Finland	All 6 Countries
Work related characteristics							
Job-to-Job Turnover	0.048	0.032	0.112	0.025	0.046	0.039	0.052
Job-to-Non-Employment Turnover	0.044	0.032	0.040	0.036	0.041	0.040	0.039
Staying on the job	0.908	0.936	0.848	0.939	0.913	0.921	0.909
Senior Management	0.189	0.175	0.306	0.242	0.209	0.289	0.229
Skilled worker	0.293	0.292	0.203	0.426	0.324	0.293	0.298
Unskilled worker	0.084	0.071	0.073	0.063	0.138	0.057	0.083
Sales staff	0.105	0.113	0.135	0.111	0.140	0.110	0.120
Secretarial	0.123	0.152	0.165	0.104	0.088	0.090	0.125
Technical or professional	0.206	0.197	0.118	0.053	0.101	0.161	0.145
Agricultural Industry	0.020	0.037	0.013	0.191	0.079	0.124	0.063
Utilities	0.108	0.078	0.074	0.100	0.112	0.067	0.093
Manufacturing	0.272	0.192	0.189	0.135	0.179	0.186	0.201
Non-financial	0.252	0.268	0.297	0.327	0.340	0.253	0.290
Financial	0.098	0.117	0.152	0.062	0.094	0.106	0.107
Health Industry	0.250	0.308	0.274	0.184	0.195	0.264	0.247
Unemployment Rate	0.082 (0.005)	0.108 (0.011)	0.074 (0.015)	0.102 (0.010)	0.160 (0.032)	0.116 (0.019)	0.106 (0.035)
Sample size	98109	73254	73977	63188	83723	33377	425628

Note: Means and standard deviation (in parenthesis)

Table A3 Job-to-Job Transitions

	LHSM	GHSM	LHSF	GHSF
Age	0.031 (0.010)	0.037 (0.017)	0.026 (0.014)	0.083 (0.022)
Age^2	2.16×10^{-5} (1.26×10^{-4})	-4.54×10^{-5} (2.10×10^{-4})	-4.43×10^{-4} (1.80×10^{-4})	-9.42×10^{-4} (2.79×10^{-4})
Working hours per week	0.004 (0.001)	0.008 (0.002)	0.007 (0.001)	0.004 (0.002)
Total personal income	-2.82×10^{-6} (1.47×10^{-6})	-1.12×10^{-6} (1.10×10^{-6})	-1.39×10^{-6} (2.35×10^{-6})	1.54×10^{-6} (1.46×10^{-6})
Unemployment Rate	-20.810 (0.676)	-28.102 (1.175)	-26.074 (1.010)	-26.965 (1.308)
Number of children	0.007 (0.014)	0.005 (0.022)	-0.034 (0.021)	-0.054 (0.027)
Experience (years)	-0.038 (0.003)	-0.035 (0.004)	-0.004 (0.003)	-0.010 (0.005)
Tenure (years)	-0.137 (0.003)	-0.143 (0.006)	-0.144 (0.005)	-0.169 (0.008)
Living as a couple	-0.015 (0.036)	0.011 (0.048)	-0.137 (0.039)	-0.083 (0.049)
Senior management	0.066 (0.057)	-0.068 (0.127)	0.210 (0.070)	0.372 (0.166)
Skilled worker	-0.088 (0.046)	-0.029 (0.129)	-0.034 (0.076)	0.334 (0.223)
Sales staff	-0.131 (0.065)	-0.152 (0.149)	-0.040 (0.060)	0.122 (0.177)
Secretarial	-0.259 (0.069)	-0.234 (0.145)	-0.115 (0.060)	0.187 (0.170)
Technical or professional	0.042 (0.061)	-0.054 (0.131)	0.070 (0.065)	0.265 (0.169)
In good health	0.052 (0.033)	0.111 (0.047)	-0.035 (0.039)	0.048 (0.054)
Agricultural industry	0.012 (0.079)	0.170 (0.139)	0.002 (0.130)	-0.156 (0.241)
Utilities	0.174 (0.059)	0.105 (0.072)	-0.178 (0.130)	-0.093 (0.160)
Manufacturing	-0.148 (0.056)	-0.098 (0.057)	-0.151 (0.066)	-0.173 (0.087)
Non-financial	-0.071 (0.054)	0.020 (0.056)	-0.099 (0.054)	-0.120 (0.067)
Health industry	-0.256 (0.069)	-0.289 (0.057)	-0.305 (0.056)	-0.300 (0.058)
Germany	-0.489 (0.038)	-0.460 (0.049)	-0.449 (0.043)	-0.412 (0.065)
France	-0.267 (0.054)	-0.090 (0.083)	-0.065 (0.068)	-0.183 (0.091)
Greece	-0.360 (0.051)	-0.318 (0.086)	-0.448 (0.078)	-0.085 (0.091)
Finland	0.056 (0.075)	0.392 (0.100)	0.221 (0.092)	0.624 (0.094)
Spain	1.389 (0.056)	1.460 (0.085)	1.517 (0.079)	1.214 (0.095)

Note: Multinomial logit estimates with standard errors reported in brackets.

Table A4: Job-to-Non-Employment Transitions

	LHSM	GHSM	LHSF	GHSF
Age	-0.199 (0.010)	-0.218 (0.024)	-0.215 (0.010)	-0.262 (0.026)
Age^2	0.003 (1.11×10^{-4})	0.003 (2.61×10^{-4})	0.003 (1.19×10^{-4})	0.004 (3.08×10^{-4})
Working hours per week	-0.024 (0.002)	-0.034 (0.004)	-0.027 (0.002)	-0.036 (0.004)
Total personal income	-3.61×10^{-5} (3.53×10^{-6})	-6.62×10^{-6} (2.91×10^{-6})	-5.14×10^{-5} (4.95×10^{-6})	-1.94×10^{-5} (8.92×10^{-6})
Unemployment Rate	-7.514 (0.734)	-8.666 (1.657)	-12.320 (0.782)	-11.326 (1.469)
Number of children	0.078 (0.019)	-0.044 (0.047)	0.212 (0.018)	0.236 (0.036)
Experience (years)	-0.020 (0.003)	-0.013 (0.006)	0.107 (0.002)	0.008 (0.006)
Tenure (years)	-0.083 (0.003)	-0.080 (0.006)	-0.074 (0.003)	-0.115 (0.008)
Living as a couple	-0.369 (0.041)	-0.238 (0.088)	0.011 (0.040)	-0.007 (0.071)
Senior management	-0.224 (0.067)	-0.592 (0.178)	-0.042 (0.067)	-0.010 (0.201)
Skilled worker	-0.248 (0.047)	-0.422 (0.184)	0.129 (0.060)	0.365 (0.249)
Sales staff	-0.112 (0.067)	-0.438 (0.222)	-0.057 (0.049)	-0.003 (0.202)
Secretarial	-0.323 (0.074)	-0.434 (0.207)	-0.182 (0.053)	-0.126 (0.199)
Technical or professional	-0.240 (0.070)	-0.485 (0.185)	-0.210 (0.061)	-0.281 (0.204)
In good health	-0.397 (0.034)	-0.361 (0.074)	-0.240 (0.034)	-0.356 (0.067)
Agricultural industry	0.208 (0.088)	0.466 (0.215)	0.215 (0.091)	0.080 (0.265)
Utilities	0.271 (0.078)	0.332 (0.128)	0.392 (0.117)	0.306 (0.198)
Manufacturing	0.001 (0.077)	0.105 (0.109)	0.126 (0.067)	0.048 (0.132)
Non-financial	0.097 (0.074)	0.342 (0.103)	0.121 (0.058)	0.155 (0.099)
Health industry	-0.033 (0.083)	-0.130 (0.106)	-0.099 (0.060)	-0.271 (0.093)
Germany	0.765 (0.061)	0.081 (0.091)	0.350 (0.047)	0.290 (0.094)
France	0.576 (0.073)	0.219 (0.133)	0.525 (0.062)	0.395 (0.124)
Greece	0.596 (0.067)	0.144 (0.136)	0.920 (0.062)	0.510 (0.122)
Finland	0.998 (0.086)	0.466 (0.180)	1.228 (0.076)	0.952 (0.135)
Spain	1.347 (0.083)	0.870 (0.160)	1.666 (0.080)	1.222 (0.137)

Note: Multinomial logit estimates with standard errors reported in brackets.