

# Transitions into self-employment and job satisfaction

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## Abstract:

This paper focuses on job satisfaction characteristics of self-employed who recently switched into self-employment coming from a private sector paid employment or another self-employment status. We use the European Community Household Panel for the EU-15 covering the years 1994-2001 and distinguish between three types of job satisfaction, i.e. job satisfaction with type of work, with earnings and job security. Findings from our generalized ordered logit regressions indicate that self-employed who recently made a transition into self-employment out of a private sector paid employment status are more satisfied with type of work and earnings and less satisfied in terms of job security than private sector employees who did not make any labor market transition. Furthermore, for private sector employees a transition into self-employment seems to be preferred over a transition into another paid employed job in the private sector in terms of all satisfaction types. We also find that self-employed who have re-entered self-employment ('serial entrepreneurs') are more satisfied in terms of earnings than static self-employed.

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## 1. INTRODUCTION

Self-employment is increasing in many parts of the world. The information technology revolution has made it easier for people to set up their own business. Self-employment receives considerable attention and support from national governments as well as from international organizations such as the World Bank and the United Nations. (New) business ownership is considered to be important because it can help to improve people's lives, not only for the business owners themselves, but also because business owners may create jobs for others. Governments around the world have created policies for encouraging entry into self-employment.

Occupational choice can be analyzed as the choice between self-employment and paid-employment (Parker, 2004). Research has addressed why people become and remain self-employed. Recent studies have emphasized that job satisfaction is an influential factor in the choice between self-employment and wage-employment (Taylor, 1996; Blanchflower, 2000; 2004). It has been demonstrated across a wide range of countries that self-employed have a higher level of job satisfaction than paid-employees. Recent findings have stressed that, when comparing job satisfaction among self-employed and paid-employees, it is important to consider the heterogeneous nature of job satisfaction or the fact that job satisfaction may refer to several aspects of a job (e.g. working hours, earnings, content of the work). Self-reported job satisfaction may reflect satisfaction with both financial and non-financial benefits and different people can mean different things when they evaluate the extent of satisfaction with their job (Muñoz de Bustillo-Llorente and Fernández-Macías, 2005; Bianchi, 2008). While self-employed, for example, are more satisfied with the type of work they do as compared to employees, they are less satisfied in when it comes to job security (Millán et al., 2011).

The degree of job satisfaction may not only be influenced by an individual's current occupational status but also by occupational change and his or her previous labor market status. Labor market or job-to-job mobility is important for national economies as well as for individuals. At the national level, mobility within the labor market is considered to be crucial for improving competitiveness. Mobility, for example, facilitates adaptation of the economy to rapid changes in supply and demand such as in a time of economic crisis. When labor markets are mobile, workers are better able to adapt to changes within the labor markets and to take advantage of existing job opportunities. Overall, for individuals, job-to-job mobility can help to achieve career and personal objectives as mobility may help to find better jobs and to achieve personal fulfillment. In this paper we relate transitions into self-employment to job satisfaction.

Labor economists have been interested for many years in the underlying determinants of job satisfaction (Clark, 1996; Hamermesh, 1977; Freeman, 1978; Borjas, 1979; Blanchflower and Oswald, 1998; Meng, 1990; Clark and Oswald, 1994) also in relation to self-employment (Blanchflower and Oswald, 1998; Blanchflower, 2000; Hundley, 2001; Benz and Frey, 2004; Noorderhaven, Thurik, Wennekers and Van Stel, 2004). Job satisfaction is considered to be important for improving individual and organizational performance. It has been concluded, for example, that there are quantifiable positive links between job satisfaction and organizational effectiveness (Ostroff, 1992; Koys, 2001), better individual performance (Sousa-Poza and Sousa-Poza, 2000), employee turnover (Ryan, Schmitt and Johnson, 1996), customer satisfaction (Rogers, Clow and Kash, 1994; Ryan, Schmitt and Johnson, 1996; Brown and Lam, 2008), achievement orientation (Lusch and Serpkenci, 1990) and lower absenteeism (Vroom, 1964).

We build on the insight from prior studies that job satisfaction is a heterogeneous phenomenon that can comprise several elements by making a distinction between three types of job satisfaction, i.e. job satisfaction with the type of work, job satisfaction with earnings and job satisfaction with job security. Satisfaction with the type of work is included since this aspect refers to the nature or content of the work itself, which may clearly differ for self-employed as compared to paid employees following from differences in the amount of independence and

which has been found to be important for increasing the probability of self-employment (Taylor, 1996). Our choice to focus on job security and earnings, in addition to satisfaction with the type of work, is driven by the observation that these are the two job attributes most valued by workers (Clark, 2001) and which also seem to facilitate entry into self-employment (Taylor, 1996). We analyze the impact of transitions into self-employment on the three types of job satisfaction. In our analysis we draw on a unique European dataset, the European Community Household Panel, covering the EU-15 countries for the period 1994-2001. We focus on labor market transitions into self-employment by individuals who were paid employees in the private sector in a previous spell and by prior self-employed who have entered a new self-employment status.

Our findings indicate that self-employed who recently made a transition into self-employment out of a private sector paid employment status are more satisfied with type of work and earnings and less satisfied in terms of job security than private sector employees who did not make any labor market transition. Furthermore, for private sector employees a transition into self-employment seems to be preferred over a transition into another paid employed job in the private sector in terms of all satisfaction types. We also find that self-employed who have re-entered self-employment ('serial entrepreneurs') are more satisfied in terms of earnings than static self-employed.

The remainder of this paper is structured as follows. Section 2 reviews related literature and develops our hypotheses. Section 3 describes the data, sample design, econometric framework and variables. Section 4 presents the main empirical results of this work. Finally, conclusions and discussion of this study are presented in Section 5.

## **2. LITERATURE BACKGROUND**

### **2.1 Job satisfaction**

Work may provide individuals with both financial and non-financial utility (Benz and Frey, 2008). One indicator of non-financial utility that has received considerable attention in previous studies in relation to work status is job satisfaction. Job satisfaction broadly refers to the degree to which people like their work and is determined based on self-reported information. While economists tend to avoid data based on subjective feelings, such as job satisfaction, there are various reasons why it may be important to analyze job satisfaction. Several studies suggest that job satisfaction can be considered as an important factor in improving a firm's competitiveness, for example because there is a positive relationship between job satisfaction and customer satisfaction (Rogers, Clow and Kash, 1994; Ryan, Schmit and Johnson, 1996; Brown and Lam, 2008) and because low job satisfaction leads to higher absenteeism (Vroom, 1964). Against this background there has been an increased interest of economist in subjective aspects of well being at work (Sousa-Poza and Sousa-Poza, 2000).

Previous studies on job satisfaction have focused on analyzing various aspects of job satisfaction in relation to employees (e.g. Clark, 1996, 1997; Clark and Oswald, 1996; Sousa-Poza and Sousa-Poza, 2000). Furthermore, several studies have included self-employed in the analysis of job satisfaction. A consistent finding is that self-employed have higher levels of job satisfaction than employees (e.g. Blanchflower and Oswald, 1998; Blanchflower, 2000; Blanchflower, Oswald and Stutzer, 2001; Parasuraman and Simmers, 2001). In other words, individuals who work as self-employed tend to be more satisfied with their job than individuals who work as employees. This is attributed to a large part to the strong perception of independence among self-employed (Hyytinen and Ruuskanen, 2006).

The fact that job satisfaction is a heterogeneous phenomenon that can comprise several elements should be taken into account. Thus, job satisfaction may assess satisfaction with both financial and non-financial benefits and different people can mean different things when they evaluate the

extent of satisfaction with their job. Previous studies have generally failed to consider such heterogeneous aspect of job satisfaction and in this paper we take account of this heterogeneity by distinguishing between three types of job satisfaction: satisfaction with the type of work, satisfaction with earnings and satisfaction with job security.

## **2.2 Transitions within the labor market**

This paper focuses on labor market transitions into self-employment. Occupational choice refers to the choice to engage in self-employment or wage-employment. When active on the labor market, individuals may remain in the same employment (either self- or paid-employment) or they may decide to make a transition into a new employment status. In this paper we are particularly interested in transitions within the labor market into self-employment focusing on private sector paid employees who make a transition into self-employment and on self-employed that re-enter self-employment. The importance of mobility within the labor market or job-to-job mobility has been stressed both for national economies as well as for individuals. At the national level, mobility within the labor market is considered to be important for improving competitiveness. Mobility, for example, facilitates adaptation of the economy to rapid changes in supply and demand such as in a time of economic crisis. When labor markets are mobile, workers are better able to adapt to changes within the labor markets and to take advantage of existing job opportunities. Overall, for individuals, job-to-job mobility can help to achieve career and personal objectives as mobility may help to find better jobs and to achieve personal fulfillment. In this paper we relate transitions between the labor market states of self-employment and paid-employment to job satisfaction.

From an economics perspective people make transitions within the labor market because of the expected financial and non-financial utility. However, transitions can also be involuntary or necessity driven when someone needs to leave his or her job or when someone is unable to survive with his or her business.

### ***2.2.1 Transitions into self-employment by individuals with a previous paid employment status***

A large body of literature has been devoted to explaining why employees working in the private sector become self-employed (Taylor, 1996).<sup>1</sup> From an economics point of view individuals will only make a transition from paid employment to self-employment to maximize utility. Utility has financial aspects (earnings) as well as non-financial aspects (e.g. independence, security). Independence and earnings have been identified as key causing factors in the decision to switch from paid-employment to self-employment (Taylor, 1996). It has been emphasized that job satisfaction is an important determinant of the choice between self- and wage-employment (Taylor, 1996; Blanchflower 2000, 2004). In this respect, job dissatisfaction has also been found to be a factor that pushes employees into self-employment, because individuals who are dissatisfied with their job are more likely to seek alternatives to being paid-employed (Brockhaus, 1980).

Being self-employed is associated with independence and autonomy and self-employed are likely to enjoy considerable freedom in selecting the type of work that they do especially as compared to private sector employees who do not work for their own. The independence that is offered by self-employment is one of the main considerations for employees to become self-employed (Taylor, 1996). This independence is likely to positively affect satisfaction with the type of work among self-employed. When an employee becomes self-employed it can be expected that he/she receives more freedom in determining the type of work he/she does as compared to an employee in the private sector. Therefore it can be expected that paid employees from the private sector who make a transition into self-employment are more satisfied with the

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<sup>1</sup> It has been demonstrated that employees in the private sector are different from employees in the public sector in terms of aspects as job motivation and satisfaction, see for example Karl and Sutton (1998). That is why we distinguish between employees from the private and public sector.

type of work they do as compared to paid employees in the private sector who do not change jobs.

Furthermore, employees are also attracted to self-employment because of expected higher earnings relative to paid-employment (Taylor, 1996). Overall, self-employment is associated with lower levels of financial utility than wage employment (Hamilton, 2000; Van Praag and Versloot, 2007). The income of self-employed also tends to be more variable than the income of paid employees (Van Praag and Versloot, 2007). Despite that self-employment, on average, generates lower levels and more variable income than wage employment (Hamilton, 2000; Van Praag and Versloot, 2007) it can be expected that a paid employee only chooses self-employment over paid employment when he or she anticipates to increase his or her financial utility. Therefore, we expect that self-employed who were paid employees in a previous employment spell are likely to be more satisfied with their earnings as compared to paid employees who have not made any labor market transition.

Self-employment typically provides limited job security especially in comparison to a job in paid employment that an employee has held for quite sometime. Self-employed tend to have lower social security or employment protection (European Commission, 2004). It is observed that people who place high value on job security prefer paid-employment over self-employment, while the reverse is true for people who are attracted to a certain occupation by the type of work (Taylor, 1996). With respect to job security self-employment can be considered to be more risky than paid-employment as the risk of business failure is higher than the risk of unemployment, especially for those who have recently started their own business. For self-employed the risk of failure is quite high, in particular in the start-up phase. Approximately 50% to 60% of new business start-ups survive the first three years of activity (Eurostat, 2004). Overall, the risk of business failure is much higher than the risk of becoming unemployed. Furthermore, self-employment tends to be associated with lower levels of social security protection as compared to paid-employment meaning that paid employees are likely to lose in terms of social protection when they switch into self-employment. Therefore it can be expected that paid employees who make a transition into self-employed are less satisfied in terms of job security than paid employees who remain in their present job.

*Hypothesis 1: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied with the type of work they do as compared to private sector employees who have not made any labor market transition.*

*Hypothesis 2: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied in terms of earnings as compared to private sector employees who have not made any labor market transition.*

*Hypothesis 3: Self-employed who were paid employees in the private sector in a previous employment spell are less satisfied in terms of job security as compared to private sector employees who have not made any labor market transition.*

Paid employees may not only switch into self-employment, alternatively they can also move into another paid employed job in the private sector.<sup>2</sup> In this case a transition will also be intended to maximize utility. In this paper we are interested whether job satisfaction aspects are affected differently when employees move into self-employment versus paid employment. Because of the difference in independence between self- and paid-employment we expect that paid-employees who make a transition into self-employment are likely to be more satisfied with the type of work they do than private sector employees who move into a new paid-employed job in the private sector. Given that job changes are important for wage growth (see Del Bono and

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<sup>2</sup> Paid-employees in the private sector can also make a transition into unemployment, inactivity and public employment. In this paper we will not explicitly address these transitions.

Vuri, 2011) we expect that transitions out of paid employment tend to be motivated by financial considerations and therefore that both those who move into self-employment and those who move into paid employment are probably more satisfied in terms of earnings than those who remain in a same paid employed job. However, we in particular expect that private sector employees will only move into self-employment when they expect sufficient additional financial benefits. Furthermore, while we expect that paid employees will often lose job security when making a labor market transfer, we expect that this loss is higher for those who move into self-employment.

*Hypothesis 4: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied in terms of type of work as compared to private sector employees who make a transition into a new paid employed job in the private sector.*

*Hypothesis 5: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied in terms of earnings as compared to private sector employees who make a transition into a new paid employed job in the private sector.*

*Hypothesis 6: Self-employed who were paid employees in the private sector in a previous employment spell are less satisfied in terms of job security than private sector employees who make a transition into a new paid employed job in the private sector.*

### **2.2.2 Transitions into self-employment by prior self-employed and current labor market status**

When evaluating job satisfaction of self-employed it may not only be relevant to make a comparison with individuals who had a similar previous labor market status, but it may also be relevant to make a comparison with individuals with a similar outcome status, i.e. with individuals who are currently self-employed. When someone remains self-employed this is usually considered to be a sign of success as it reflects business survival. It is also possible, however, that someone remains self-employed because of the absence of other employment opportunities. We know from previous studies that a large majority of self-employed in higher income countries start out of opportunity motives and not out of necessity considerations.

A first issue that we will now explore is how self-employed individuals who were already in the same self-employment in a previous spell compare to individuals who just moved into self-employment out of private sector employment. Given the fact that a job aspect like type of work and earnings may not change easily (Quarstein, McAfee and Glassman, 1992) we expect that especially those who recently made a transition into self-employment are likely to be satisfied in terms of type of work and earnings. In terms of job security, one might expect that self-employed who have remained self-employed might give a more positive evaluation of job security than those who just entered self-employment given that job security may in particular be low in the start-up phase as indicated earlier in this paper.

*Hypothesis 7: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied with the type of work they do as compared to self-employed who have not made any labor market transition.*

*Hypothesis 8: Self-employed who were paid employees in the private sector in a previous employment spell are more satisfied in terms of earnings as compared to self-employed who have not made any labor market transition.*

*Hypothesis 9: Self-employed who were paid employees in the private sector in a previous employment spell are less satisfied in terms of job security as compared to self-employed who have not made any labor market transition.*

It can also happen that self-employed move into a new self-employed position. Thus individuals may re-enter self-employment after they have exited a self-employed job. Sometimes individuals even repeatedly exit and (re)enter self-employment, which is called serial entrepreneurship. Serial entrepreneurs run a substantial share of businesses (Westhead et al. 2005). They are of considerable importance to the economy e.g. as drivers of the evolution of industries (Hyytinen and Ilmakunnas 2007) and markets due to their internal (experience) and external (spillovers) learning. Still, knowledge about the specific conditions that make an entrepreneur serial is still limited. We enter the area of “serial entrepreneurship” by investigating job satisfaction characteristics of individuals who recently exited self-employment and who engage in a new self-employment position.

Probably such a transition is particularly motivated by profit opportunities or an expected increase in earnings. In this case independence may not play such a dominant role as there is no a priori reason to expect that one self-employment provides more independence than another self-employment. Satisfaction with job security, however, can be expected to differ from those who have remained in the same self-employment as job security is in particular low in the early stages of self-employment.

*Hypothesis 10: Prior self-employed who recently made a transition into a new self-employment position are more satisfied in terms of earnings as compared to self-employed who have not made any labor market transition.*

*Hypothesis 11: Prior self-employed who recently made a transition into a new self-employment position are less satisfied in terms of job security as compared to self-employed who have not made any labor market transition.*

### 3. DATA, METHODOLOGY AND VARIABLES

#### 3.1 Data source and sample

*Data source.* We use data from the European Community Household Panel (ECHP) covering the period 1994-2001.<sup>3</sup> The ECHP is a standardized multi-purpose annual longitudinal survey carried out at the level of the EU-15.<sup>4</sup> It was designed and coordinated by the Statistical Office of the European Communities (Eurostat). The target population of the ECHP consists of people living in private households throughout the national territory of each country. The definition of household is based on the standard criteria of “sharing the same dwelling” and “common living arrangements”. Individuals in the sample who move or join a new household are followed up at their new location. Lastly, the survey also covers all persons cohabiting with any of the original sample persons in the same household. These rules are followed to reflect the demographic changes in the population and to maintain the panels’ cross-sectional representativeness of the population.<sup>5</sup>

Each year all members of the selected households in the participating countries are interviewed about issues relating to demographics, labor market characteristics, income and living conditions. The same questionnaire is used in all countries, which makes the information directly comparable. The first wave of data collection was held in 1994. We have information on 60,500 nationally representative households, i.e. approximately 130,000 individuals aged 16 years and older, for the entire period 1994-2001.

*Our sample.* To construct our sample, we proceed in several steps. First, we categorize individuals in the ECHP according to their labor market status, that is (I) paid employment, (II)

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<sup>3</sup> ECHP data are used with the permission of Eurostat (contract ECHP/2006/09 with the Universidad de Huelva).

<sup>4</sup> Information concerning job satisfaction for Sweden was not collected in any way.

<sup>5</sup> See Peracchi (2002) for a review of the organization of the survey, and a discussion of the issues a researcher may face when using these data.

self-employment, (III) education or training, (IV) unemployment, (V) unpaid employment, and (VI) inactivity. In a next step, we limit our sample to include only men and women aged 18 to 65 working either part-time or full-time in any business sector either as public or private sector paid-employees or self-employed.<sup>6</sup> In a final step, we removed observations with missing data for any of the variables included in our regressions. After filtering, the final sample used for estimation contains 230,629 observations (67,800 individuals).

### 3.2 Method

To investigate the impact of transitions into self-employment on job satisfaction with type of work, earnings and job security we use ordered logit models. To avoid violation of the proportional odds assumption (also called parallel regressions assumption, or parallel lines assumption) we apply generalized ordered logit models.<sup>7</sup>

Within this framework, an individual's self-reported job satisfaction ( $sat_i$ ) is interpreted as an ordinal indicator of a latent wellbeing variable ( $WB_i$ ), which is unobservable. Our dependent variables are (i) job satisfaction in terms of type of work; (ii) job satisfaction in terms of earnings; and (iii) job satisfaction in terms of job security. These variables range from 1 to 6 and equal 1 for individuals who are not satisfied with their present job and 6 for those being fully satisfied with their job. The dependent variable has been reclassified into three values for job satisfaction: (1) dissatisfied, (2) neither dissatisfied nor satisfied, (3) satisfied.<sup>8</sup> The relationship between self-reported job satisfaction ( $sat_i$ ) and the latent variable ( $WB_i$ ) is given by

$$\begin{aligned} sat_i = 1 & \text{ if } -\infty < WB_i \leq \mu_1 \\ sat_i = 2 & \text{ if } \mu_1 < WB_i \leq \mu_2 \\ sat_i = 3 & \text{ if } \mu_2 < WB_i \leq +\infty \end{aligned}$$

where  $\mu_1$  and  $\mu_2$  are the thresholds of the variable  $WB_i$  that divide its range into separate intervals associated with the different levels of job satisfaction.

The generalized ordered logit model can be written as

$$Pr(sat_i > j) = g(X\beta_j) = \frac{\exp(\alpha_j + X_i\beta_j)}{1 + \exp(\alpha_j + X_i\beta_j)}, j = 1, 2$$

where the vector  $X_i$  represents individual and firm-specific characteristics and economic conditions;  $\beta_j$  is the associated vector of coefficients to be estimated<sup>9</sup>; and  $g(\cdot)$  is specified as the logistic cumulative distribution function. It can be determined that the probabilities that  $sat_i$  will take on each of the values 1, 2 and 3 is equal to

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<sup>6</sup> Individuals are forced to choose only one main occupation, either working for an employer in paid employment, or working as a self-employed. Since no information is collected about secondary activities, we cannot identify whether some individuals combine both self- and paid-employment. When running our estimations, however, the exclusion of part-time workers (who might combine both activities) does not affect our results in any significant way. Therefore, our results seem to be robust to the presence of these special cases.

<sup>7</sup> Different tests of the proportional-odds assumption (whether the coefficients are equal across categories) have been performed for all our estimations (global test of whether any variable violates the parallel lines assumption). All these tests provided evidence that the parallel regression assumption was violated and, as a consequence, demonstrate the need to apply generalized ordered logit models. See Williams (2006) for a complete description of the methodology.

<sup>8</sup> There are two reasons for doing this: first, in most cases, there are only few observations in the low satisfaction scales. A second reason for recoding is that we assume that there is quite a bit of "noise" in detailed scales. This can be illustrated using the following -much-cited- example: people usually know if they are tall or short; they may, however, have difficulties in classifying themselves as very short or extremely short.

<sup>9</sup> The formulas for the parallel lines model and generalized ordered logit model are the same, except that in the parallel lines model the Betas (but not the Alphas) are the same for all values of  $j$ .

$$Pr(sat_i = 1) = 1 - g(X_i\beta_1)$$

$$Pr(sat_i = 2) = g(X_i\beta_1) - g(X_i\beta_2)$$

$$Pr(sat_i = 3) = g(X_i\beta_2)$$

Finally, since the ECHP tracks the same individuals from 1994 to 2001, standard errors are adjusted for intra-individual correlation in order to control for the possible existence of unobserved heterogeneity.

### 3.3 Variables

*Hypothesis-related independent variables.* For the purpose of this study the estimation strategy will be to include several dummies that control for an individual's previous status in period  $t-1$  while also reflecting the current employment status in period  $t$ . The following employment transition dummies that are included are directly related to our hypothesis.

1. From private sector paid employment to self-employment
2. Remaining the same job as private sector paid employee
3. From private sector paid employment to new private sector paid employment spell
4. Remaining the same job as self-employed
5. From self-employment to new self-employment spell

In addition, the following employment transition dummies are included which can be considered as control variables:

6. From private sector paid employment to public paid employment
7. From self-employment to private sector paid employment
8. From self-employment to public paid employment
9. From public paid employment to self-employment
10. From public paid employment to private sector paid employment
11. Remaining the same job as public paid employee
12. From public paid employment to new public paid employment spell
13. From unemployment to self-employment
14. From unemployment to private sector paid employment
15. From unemployment to public paid employment
16. From inactivity to self-employment
17. From inactivity to private sector paid employment
18. From inactivity to public paid employment

*Other Control variables.* In the analyses we include a large number of individual-specific independent variables such as demographic indicators (gender, age, cohabitation status, number of children, health status), level of education, hours of work per week and level of earnings. For comparability purposes, incomes are corrected by purchasing power parities (comparability across countries) and harmonized consumer price indexes are used (comparability across time). Finally, we include business sector, country, and year dummies to control for industry, country, and business cycle effects, respectively.<sup>10</sup>

## 4. RESULTS

This section presents the main results of the empirical analysis as follows. First, the results for the estimates of the probability of being satisfied with a present job in terms of the *type of work*, *earnings* and *job security* for all workers are presented in tables 1, 2 and 3. Thus, each table presents three different models, one for each dependent variable in this analysis. Model (I) in

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<sup>10</sup> Variable definitions are reported in Table 1 (Appendix). Table 2 (Appendix) presents the distribution of observations and summarizes the mean values of our relevant groups for our hypotheses testing.

tables 1 to 3 focus on job satisfaction in terms of *type of work* whereas models (II) and (III) concentrate on job satisfaction with *earnings* and *job security*, respectively.

Tables 1 to 3 just differ from each other with respect to the reference category used to analyse the role of employment transitions on job satisfaction. Table 1 uses as reference category the group of individuals “remaining the same job as private sector paid employee”. This reference category is selected in order to compare job satisfaction of this group with that of prior private sector employees who have moved into self-employment. This means that the first set of hypotheses (1 to 3) are tested in this table. These results are discussed in subsection 4.1. Next, table 2 excludes those private sector employees who have made a transition into a new paid employed job in the private sector (category “from private sector paid employment to new private sector paid employment spell”). The objective is to compare job satisfaction characteristics of this group with that of prior private sector employees who recently made a transition into self-employment (category “from private sector paid employment to self-employment”). By doing so, the second set of hypotheses (4 to 6) is tested and the results are discussed in subsection 4.2. Finally, table 3 uses those individuals “remaining the same job as self-employed” as the reference group. Job satisfaction of this category is compared with that of prior private sector employees who recently moved into self-employment (category “from private sector paid employment to self-employment”) in order to test our third set of hypotheses (7 to 9). In addition, the last set of hypotheses (10-11) are tested by comparing job satisfaction of this reference category with that of prior self-employed who recently made a transition into a new self-employment position (category “from self-employment to new self-employment spell”). All these results are discussed in subsection 4.3.

At the top of each model, predicted probabilities of job satisfaction for each possible level of job satisfaction (1 = dissatisfied, 2 = neither dissatisfied nor satisfied, 3 = satisfied) for the sample means are shown. Below, for clarity of presentation and discussion of the results, only the effects of the explanatory variables on the probability that individuals are satisfied with their job (job satisfaction equals 3) are presented in terms of marginal effects (and not coefficients). These marginal effects are expressed in relative terms (with respect to the predicted probabilities for the sample means). In addition, t-statistics associated with marginal effects are also reported. Finally, the number of individuals and observations involved in the estimations and log pseudolikelihood of each respective model are reported below.

#### **4.1 Self-employed who were private sector employees in a previous spell versus private sector employees who did not make any employment transition**

We now focus on transitions into self-employment by former private sector paid employees. Table 1 presents results with ‘remaining the same job as private sector employee’ as the reference category. It can be seen from the table that self-employed who were paid employees in a previous spell are more satisfied in terms of type of work and earnings and less satisfied in terms of job security as compared to private sector employees who have not made any transition in the labor market. These results uphold hypotheses 1, 2 and 3.

--- Insert Table 1 about here ---

#### **4.2 Self-employed who were private sector employees in a previous spell versus private sector employees who recently had a different private paid employed job**

Table 2 shows the results where private sector employees who recently moved into a new paid employed job in the private sector are taken as the reference category. It appears that on all job satisfaction aspects former paid employees who have recently moved into self-employment are more satisfied with all three aspects of job satisfaction than those who have made a transition into a new paid-employed job in the private sector. The results confirm hypotheses 4 and 5, but do not support hypothesis 6.

--- Insert Table 2 about here ---

### **4.3 Self-employed who recently made a labor market transition versus self-employed who did not make any labor market transition**

Finally, table 3 gives results taking those who remain in the same job as self-employed as the reference category. The results show that self-employed who were paid employees in the private sector in a previous employment spell are more satisfied with type of work and earnings than self-employed who have not made any labor market transitions, while there are no differences in terms of satisfaction with job security for these two groups. The results provide support for hypothesis 7 and 8, but do not uphold hypothesis 9. Finally, we find that prior self-employed who entered a new self-employment status are more satisfied in terms of earnings than self-employed who remained in the same job as self-employed. No differences between the two groups are found in terms of job security. The results are in support of hypothesis 10 but not of hypothesis 11.

*--- Insert Table 3 about here ---*

## **5. CONCLUSION AND DISCUSSION**

In this paper we investigate job satisfaction characteristics of individuals who have recently switched into self-employment out of a paid employed or another self-employed position. Whereas previous studies have mainly dealt with job satisfaction as a homogeneous phenomenon we distinguish between different types of job satisfaction, i.e. job satisfaction in terms of type of work, in terms of earnings and in terms of job security.

We first compare job satisfaction characteristics of individuals with a similar previous employment status as paid employees in the private sector, but who differ in terms of their current employment status. We find that when self-employed were paid employed in a previous employment spell they are more satisfied in terms of type of work and earnings and less satisfied in terms of job security as compared to private sector employees who have not made any labor market transition. Self-employed who were private sector employees in a previous spell are even more satisfied in terms of type of work and earnings than previous private sector employees who have recently started to work in a new job in the private sector. Interestingly, they are also more satisfied in terms of job security. These results seem to suggest to private sector employees have more to gain in terms of job satisfaction from switching into self-employment than from switching into a new paid employed job in the private sector.

In a next step we compare individuals who have recently entered self-employment out of paid employment or a different self-employment status to self-employed who have not made any labor market transitions. We expected in advance that individuals who moved into self-employment coming from private sector paid employment would be more satisfied in terms of type of work and earnings than self-employed who did not make any labor market transitions. However, we found no prove that they are less satisfied in terms of job security.

In line with our expectations we find that self-employed coming from a different prior self-employment position are more satisfied in terms of earnings than those self-employed that have not made a transition. We would expect that such a movement is in particular motivated by profitable opportunities and this indeed seems to be confirmed by our results.

Even though in general private sector employees may be more satisfied in terms of job security as compared to self-employed we find that self-employed who were private sector employees in a previous employment spell are happier with job security than private sector employees who recently moved into a new paid employed job in the private sector. Thus, our results suggest that when comparing job satisfaction of self-employed and employees it is important to consider an individual's previous labor market status.

Also, while prior studies have highlighted differences in job satisfaction between self-employed and paid employees our results indicate that self-employed are not a homogeneous group and in particular that it is important to consider the previous labor market status of self-employed when studying their job satisfaction characteristics. There are significant differences in job satisfaction characteristics of self-employed depending on their prior labor market status.

We find no indications that satisfaction with job security is particularly low for those who recently entered self-employment as compared to those who remained in the same self-employment status. We argued that when individuals would be able to survive in a particular self-employment status this would be some kind of indicator of quality, while job security of those who recently entered self-employment could be expected to be low as the risk of failure is high after start-up. Our finding might be interpreted as indicating that job security of self-employed is rather independent from whether someone recently switched into self-employment or whether someone has survived in self-employment for a longer period of time.

Finally, we foresee a number of other avenues for future research. It could be interesting, for example, to explore whether higher levels of job satisfaction of those who recently switched into self-employment are associated with higher levels of financial utility over time or not. Furthermore, research could benefit from obtaining information on whether quitting the previous employment spell was voluntary or not. Our study concentrates on the context of higher income countries, which means that switches to self-employment are largely driven by opportunities and not so much by necessity. Different results might be found when conducting a similar study in lower income countries in which switches into self-employment frequently occur out of necessity motives.

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## Tables to be inserted in the text

**Table 1.** Generalized Ordered Logit estimations

Reference category: Remaining the same job as private paid employee

|  | <b>Model I</b><br><i>JS with type of work</i> |                    | <b>Model II</b><br><i>JS with earnings</i> |                    | <b>Model III</b><br><i>JS with job security</i> |                    |
|--|---|--------------------|--|--------------------|---|--------------------|
| Prob (Job Satisfaction = 1)  | 0.0495  |                    | 0.1588                                     |                    | 0.1005  |                    |
| Prob (Job Satisfaction = 2)  | 0.4065  |                    | 0.6225                                     |                    | 0.4136  |                    |
| <b>Prob (Job Satisfaction = 3)</b>   | <b>0.5440</b>                                 |                    | <b>0.2187</b>                              |                    | <b>0.4859</b>                                   |                    |
| <b>Independent variables</b>   | <b>Marg. Eff. (%)</b>                         | <b>t-statistic</b> | <b>Marg. Eff. (%)</b>                      | <b>t-statistic</b> | <b>Marg. Eff. (%)</b>                           | <b>t-statistic</b> |
| <i>Hypothesis-related independent variables</i>  |   |                    |  |                    |   |                    |
| 1. From PrE to SE  | <b>17.65%</b>                                 | <b>9.1 ***</b>     | <b>31.96%</b>                              | <b>7.44 ***</b>    | <b>-9.55%</b>                                   | <b>-4.13 ***</b>   |
| 2. Remaining the same job as PrE ( <i>ref.</i> )   |   |                    |  |                    |   |                    |
| 3. From PrE to new PrE spell   | 0.56%   | 0.54               | 16.67%                                     | 7.74 ***           | -24.24%   | -21.83 ***         |
| 4. Remaining the same job as SE  | 14.04%  | 14.79 ***          | -3.59%                                     | -1.8 *             | -9.60%  | -8.97 ***          |
| 5. From SE to new SE spell   | 15.49%  | 4.71 ***           | 15.96%                                     | 2.32 **            | -14.56%   | -3.8 ***           |
| <i>Control variables: employment dynamics</i>  |   |                    |  |                    |   |                    |
| 6. From PrE to PuE   | 1.84%   | 0.98               | 11.72%                                     | 3.66 ***           | 0.10%   | 0.05               |
| 7. From SE to PrE  | 4.51%   | 1.89 *             | 28.95%                                     | 4.77 ***           | -16.09%   | -5.72 ***          |
| 8. From SE to PuE  | 6.28%   | 0.97               | 32.60%                                     | 2.6 ***            | -12.26%   | -1.69 *            |
| 9. From PuE to SE  | 14.09%  | 1.99 **            | 12.80%                                     | 0.96               | -18.65%   | -2.35 **           |
| 10. From PuE to PrE  | 0.05%   | 0.03               | 9.43%                                      | 3.1 ***            | -3.96%  | -2.04 **           |
| 11. Remaining the same job as PuE  | 7.07%   | 5.91 ***           | 6.14%                                      | 2.85 ***           | 34.72%  | 26.46 ***          |
| 12. From PuE to new PuE spell  | -2.85%  | -1.03              | -4.09%                                     | -0.96              | -24.84%   | -8.81 ***          |
| 13. From U to SE   | 10.25%  | 3.24 ***           | -10.63%                                    | -2.07 **           | -27.41%   | -7.1 ***           |
| 14. From U to PrE  | -10.31%                                       | -7.5 ***           | 4.10%                                      | 1.36               | -40.71%   | -29.11 ***         |
| 15. From U to PuE  | -1.34%  | -0.49              | 24.99%                                     | 3.78 ***           | -49.26%   | -19.15 ***         |
| 16. From I to SE   | 8.78%   | 3.04 ***           | 22.37%                                     | 3.97 ***           | -7.26%  | -2.32 **           |
| 17. From I to PrE  | -6.26%  | -4.31 ***          | 29.40%                                     | 8.59 ***           | -20.39%   | -13.1 ***          |
| 18. From I to PuE  | 5.63%   | 2.13 **            | 44.30%                                     | 7.83 ***           | -27.07%   | -10.06 ***         |
| <i>Demographic characteristics</i>   |   |                    |  |                    |   |                    |
| Female   | -1.64%  | -2.35 **           | 1.57%                                      | 1.15               | 2.99%   | 3.76 ***           |
| Age  | -0.26%  | -1.35              | -2.72%                                     | -6.84 ***          | -2.19%  | -9.71 ***          |
| Age (squared)  | 0.01%   | 3.77 ***           | 0.04%                                      | 8.86 ***           | 0.03%   | 11.75 ***          |
| Cohabiting   | 3.26%   | 4.21 ***           | 8.04%                                      | 5.55 ***           | 8.04%   | 9.72 ***           |
| Number of children under 14  | -0.54%  | -1.53              | -1.63%                                     | -2.73 ***          | -0.79%  | -2.04 **           |
| Health status  | -15.32%                                       | -39.89 ***         | -26.53%                                    | -34.1 ***          | -13.26%   | -29.96 ***         |
| <i>Education</i>   |   |                    |  |                    |   |                    |
| Basic education ( <i>ref.</i> )  |   |                    |  |                    |   |                    |
| Secondary education  | 11.83%  | 17.19 ***          | 10.56%                                     | 7.79 ***           | 5.36%   | 6.85 ***           |
| Tertiary education   | 19.29%  | 22.18 ***          | 35.90%                                     | 20.82 ***          | 10.15%  | 10.45 ***          |
| <i>Job characteristics</i>   |   |                    |  |                    |   |                    |
| Hours of work  | 0.25%   | 2.42 **            | 0.51%                                      | 2.59 ***           | 0.41%   | 3.6 ***            |
| Hours of work (squared)  | 0.002%  | 1.6                | -0.001%                                    | -0.29              | 0.0003%   | 0.26               |
| <i>Incomes</i>   |   |                    |  |                    |   |                    |
| Annual earnings <i>t-1</i> (in logs)   | 1.03%   | 9.03 ***           | 5.43%                                      | 20.2 ***           | 2.24%   | 18 ***             |
| <i>Business sector dummies</i><br>(18 categories; <i>ref.</i> Agriculture, hunting forestry and fishing) |   |                    |  |                    |   |                    |
|  | Yes   |                    | Yes  |                    | Yes   |                    |
| <i>Country dummies</i><br>(14 categories; <i>ref.</i> Spain)   |   |                    |  |                    |   |                    |
|  | Yes   |                    | Yes  |                    | Yes   |                    |
| <i>Year dummies</i><br>(8 categories; <i>ref.</i> 1994)  |   |                    |  |                    |   |                    |
|  | Yes   |                    | Yes  |                    | Yes   |                    |
| No. of observations (individuals)  | 230,629 (67,800)                              |                    | 230,629 (67,800)                           |                    | 230,629 (67,800)                                |                    |
| Log pseudolikelihood   | -186,616.41                                   |                    | -205,378.87                                |                    | -202,529.28                                     |                    |

**Notes:** Data source: ECHP 1994-2001; \*  $0.1 > p \geq 0.05$ ; \*\*  $0.05 > p \geq 0.01$ ; \*\*\*  $p < 0.01$ .

**Table 2.** Generalized Ordered Logit estimations

Reference category: From private paid employment to new private paid employment spell

|  | Model I<br><i>JS with type of work</i> |                | Model II<br><i>JS with earnings</i> |                | Model III<br><i>JS with job security</i> |                |
|--|--|----------------|-------------------------------------|----------------|--|----------------|
|  | Marg. Eff. (%)                         | t-statistic    | Marg. Eff. (%)                      | t-statistic    | Marg. Eff. (%)                           | t-statistic    |
| Prob (Job Satisfaction = 1)  | 0.0495                                 |                | 0.1588                              |                | 0.1008                                   |                |
| Prob (Job Satisfaction = 2)  | 0.4065                                 |                | 0.6224                              |                | 0.4133                                   |                |
| <b>Prob (Job Satisfaction = 3)</b>                                     | <b>0.5440</b>                          |                | <b>0.2188</b>                       |                | <b>0.4859</b>                            |                |
| <i>Hypothesis-related independent variables</i>                        |  |                |                                     |                |  |                |
| 1. From PrE to SE  | <b>17.81%</b>                          | <b>8.97***</b> | <b>24.53%</b>                       | <b>5.84***</b> | <b>8.44%</b>                             | <b>3.63***</b> |
| 2. Remaining the same job as PrE                                       | -0.69%                                 | -0.75          | -10.29%                             | -6.23***       | 16.06%                                   | 15.71***       |
| 3. From PrE to new PrE spell ( <i>ref.</i> )                           |  |                |                                     |                |  |                |
| 4. Remaining the same job as SE  | 13.49%                                 | 11.89***       | -12.84%                             | -5.92***       | 5.74%                                    | 4.3***         |
| 5. From SE to new SE spell   | 15.73%                                 | 4.8***         | 9.62%                               | 1.47           | 3.50%                                    | 0.92           |
| <i>Control variables: employment dynamics</i>                          |  |                |                                     |                |  |                |
| 6. From PrE to PuE   | 1.77%                                  | 0.89           | -0.23%                              | -0.06          | 15.57%                                   | 7.05***        |
| 7. From SE to PrE  | 4.86%                                  | 2.02**         | 17.38%                              | 2.96***        | -1.90%                                   | -0.71          |
| 8. From SE to PuE  | 6.34%                                  | 0.98           | 24.69%                              | 2.08**         | 2.65%                                    | 0.36           |
| 9. From PuE to SE  | 14.13%                                 | 2.01**         | 6.12%                               | 0.49           | -8.76%                                   | -1.12          |
| 10. From PuE to PrE  | -0.96%                                 | -0.51          | 1.37%                               | 0.45           | 12.16%                                   | 6.1***         |
| 11. Remaining the same job as PuE                                      | 6.57%                                  | 4.76***        | -3.47%                              | -1.47          | 48.61%                                   | 34.5***        |
| 12. From PuE to new PuE spell  | -2.94%                                 | -1.04          | -11.29%                             | -2.75***       | -9.88%                                   | -3.21***       |
| 13. From U to SE   | 10.72%                                 | 3.43***        | -14.75%                             | -3***          | -13.66%                                  | -3.95***       |
| 14. From U to PrE  | -10.83%                                | -7.19***       | -8.49%                              | -3.68***       | -27.07%                                  | -16.24***      |
| 15. From U to PuE  | -1.18%                                 | -0.43          | 10.31%                              | 1.98**         | -37.15%                                  | -12.46***      |
| 16. From I to SE   | 8.31%                                  | 2.82***        | 16.40%                              | 3.02***        | 5.77%                                    | 1.6            |
| 17. From I to PrE  | -7.30%                                 | -4.86***       | 16.41%                              | 5.77***        | -6.29%                                   | -3.92***       |
| 18. From I to PuE  | 5.62%                                  | 2.1**          | 35.07%                              | 6.41***        | -12.74%                                  | -4.35***       |
| <i>Demographic characteristics</i>                                     |  |                |                                     |                |  |                |
| Female   | -1.63%                                 | -2.33**        | 0.07%                               | 0.06           | 3.26%                                    | 4.1***         |
| Age  | -0.25%                                 | -1.3           | -2.80%                              | -7.08***       | -2.12%                                   | -9.39***       |
| Age (squared)  | 0.01%                                  | 3.73***        | 0.04%                               | 9.03***        | 0.03%                                    | 11.56***       |
| Cohabiting   | 3.22%                                  | 4.16***        | 7.91%                               | 5.46***        | 8.05%                                    | 9.74***        |
| Number of children under 14  | -0.54%                                 | -1.53          | -1.67%                              | -2.8***        | -0.75%                                   | -1.92*         |
| Health status  | -15.32%                                | -39.89***      | -26.47%                             | -34.04***      | -13.27%                                  | -29.96***      |
| <i>Education</i>   |  |                |                                     |                |  |                |
| Basic education ( <i>ref.</i> )  |  |                |                                     |                |  |                |
| Secondary education  | 11.83%                                 | 17.18***       | 10.53%                              | 7.76***        | 5.39%                                    | 6.89***        |
| Tertiary education   | 19.30%                                 | 22.19***       | 35.84%                              | 20.79***       | 10.26%                                   | 10.56***       |
| <i>Job characteristics</i>   |  |                |                                     |                |  |                |
| Hours of work  | 0.25%                                  | 2.42**         | 0.48%                               | 2.44**         | 0.36%                                    | 3.16***        |
| Hours of work (squared)  | 0.002%                                 | 1.59           | -0.001%                             | -0.28          | 0.001%                                   | 0.75           |
| <i>Incomes</i>   |  |                |                                     |                |  |                |
| Annual earnings <i>t-1</i> (in logs)                                   | 1.05%                                  | 9.15***        | 5.48%                               | 20.49***       | 2.08%                                    | 16.65***       |
| <i>Business sector dummies</i>   |  |                |                                     |                |  |                |
| (18 categories; <i>ref.</i> Agriculture, hunting forestry and fishing) |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>     |
| <i>Country dummies</i>   |  |                |                                     |                |  |                |
| (14 categories; <i>ref.</i> Spain)                                     |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>     |
| <i>Year dummies</i>  |  |                |                                     |                |  |                |
| (8 categories; <i>ref.</i> 1994)                                       |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>     |
| No. of observations (individuals)                                      | 230,629 (67,800)                       |                | 230,629 (67,800)                    |                | 230,629 (67,800)                         |                |
| Log pseudolikelihood   | -183,629.65                            |                | -205,398.98                         |                | -202,690.44                              |                |

**Notes:** Data source: ECHP 1994-2001; \*  $0.1 > p \geq 0.05$ ; \*\*  $0.05 > p \geq 0.01$ ; \*\*\*  $p < 0.01$ .

**Table 3.** Generalized Ordered Logit estimations

Reference category: Remaining the same job as self-employed

|  | Model I<br><i>JS with type of work</i> |                | Model II<br><i>JS with earnings</i> |                | Model III<br><i>JS with job security</i> |              |
|--|--|----------------|-------------------------------------|----------------|--|--------------|
| Prob (Job Satisfaction = 1)  | 0.0495                                 |                | 0.1588                              |                | 0.1005                                   |              |
| Prob (Job Satisfaction = 2)  | 0.4065                                 |                | 0.6225                              |                | 0.4136                                   |              |
| <b>Prob (Job Satisfaction = 3)</b>                                     | <b>0.5440</b>                          |                | <b>0.2187</b>                       |                | <b>0.4859</b>                            |              |
| Independent variables  | Marg. Eff. (%)                         | t-statistic    | Marg. Eff. (%)                      | t-statistic    | Marg. Eff. (%)                           | t-statistic  |
| <i>Hypothesis-related independent variables</i>                        |  |                |                                     |                |  |              |
| 1. From PrE to SE  | <b>6.06%</b>                           | <b>2.98***</b> | <b>37.50%</b>                       | <b>6.77***</b> | <b>-1.21%</b>                            | <b>-0.52</b> |
| 2. Remaining the same job as PrE                                       | -11.85%                                | -12.96***      | 1.85%                               | 1.01           | 8.74%                                    | 8.55***      |
| 3. From PrE to new PrE spell   | -11.14%                                | -8.63***       | 18.80%                              | 6.89***        | -16.17%                                  | -11.47***    |
| 4. Remaining the same job as SE ( <i>ref.</i> )                        |  |                |                                     |                |  |              |
| 5. From SE to new SE spell   | 3.54%                                  | 1.03           | <b>13.96%</b>                       | <b>2.02**</b>  | <b>-6.22%</b>                            | <b>-1.61</b> |
| <i>Control variables: employment dynamics</i>                          |  |                |                                     |                |  |              |
| 6. From PrE to PuE   | -9.52%                                 | -4.7***        | 11.31%                              | 3.21***        | 8.27%                                    | 3.68***      |
| 7. From SE to PrE  | -7.47%                                 | -3.02***       | 31.54%                              | 5***           | -7.87%                                   | -2.68***     |
| 8. From SE to PuE  | -4.97%                                 | -0.74          | 31.61%                              | 2.46**         | -4.36%                                   | -0.59        |
| 9. From PuE to SE  | 2.45%                                  | 0.33           | 11.57%                              | 0.86           | -10.59%                                  | -1.3         |
| 10. From PuE to PrE  | -11.48%                                | -5.91***       | 8.98%                               | 2.66***        | 4.34%                                    | 2.05**       |
| 11. Remaining the same job as PuE                                      | -4.07%                                 | -2.95***       | 8.05%                               | 3.17***        | 42.21%                                   | 29.52***     |
| 12. From PuE to new PuE spell  | -14.10%                                | -4.93***       | -4.41%                              | -0.98          | -17.19%                                  | -5.7***      |
| 13. From U to SE   | -1.54%                                 | -0.47          | -13.19%                             | -2.58***       | -19.71%                                  | -4.91***     |
| 14. From U to PrE  | -21.80%                                | -14.71***      | 6.22%                               | 1.86*          | -33.62%                                  | -20.92***    |
| 15. From U to PuE  | -12.46%                                | -4.43***       | 27.30%                              | 3.99***        | -43.13%                                  | -15.3***     |
| 16. From I to SE   | -2.84%                                 | -0.96          | 19.83%                              | 3.53***        | 0.86%                                    | 0.28         |
| 17. From I to PrE  | -17.54%                                | -11.18***      | 31.74%                              | 8.33***        | -12.58%                                  | -7.19***     |
| 18. From I to PuE  | -5.17%                                 | -1.87*         | 51.09%                              | 7.8***         | -19.81%                                  | -6.89***     |
| <i>Demographic characteristics</i>                                     |  |                |                                     |                |  |              |
| Female   | -1.85%                                 | -2.65***       | 1.63%                               | 1.19           | 3.10%                                    | 3.9***       |
| Age  | -0.24%                                 | -1.21          | -2.71%                              | -6.81***       | -2.21%                                   | -9.78***     |
| Age (squared)  | 0.01%                                  | 3.74***        | 0.04%                               | 8.81***        | 0.03%                                    | 11.78***     |
| Cohabiting   | 3.32%                                  | 4.29***        | 8.00%                               | 5.52***        | 8.00%                                    | 9.68***      |
| Number of children under 14  | -0.52%                                 | -1.45          | -1.64%                              | -2.75***       | -0.80%                                   | -2.07**      |
| Health status  | -15.32%                                | -39.95***      | -26.52%                             | -34.09***      | -13.26%                                  | -29.93***    |
| <i>Education</i>   |  |                |                                     |                |  |              |
| Basic education ( <i>ref.</i> )  |  |                |                                     |                |  |              |
| Secondary education  | 11.85%                                 | 17.21***       | 10.55%                              | 7.78***        | 5.35%                                    | 6.84***      |
| Tertiary education   | 19.34%                                 | 22.23***       | 35.89%                              | 20.81***       | 10.14%                                   | 10.43***     |
| <i>Job characteristics</i>   |  |                |                                     |                |  |              |
| Hours of work  | 0.26%                                  | 2.52**         | 0.51%                               | 2.6***         | 0.40%                                    | 3.49***      |
| Hours of work (squared)  | 0.002%                                 | 1.79*          | -0.001%                             | -0.42          | 0.0003%                                  | 0.24         |
| <i>Incomes</i>   |  |                |                                     |                |  |              |
| Annual earnings <i>t-1</i> (in logs)                                   | 1.05%                                  | 9.16***        | 5.47%                               | 20.02***       | 2.19%                                    | 17.46***     |
| <i>Business sector dummies</i>   |  |                |                                     |                |  |              |
| (18 categories; <i>ref.</i> Agriculture, hunting forestry and fishing) |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>   |
| <i>Country dummies</i>   |  |                |                                     |                |  |              |
| (14 categories; <i>ref.</i> Spain)                                     |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>   |
| <i>Year dummies</i>  |  |                |                                     |                |  |              |
| (8 categories; <i>ref.</i> 1994)                                       |  | <i>Yes</i>     |                                     | <i>Yes</i>     |  | <i>Yes</i>   |
| No. of observations (individuals)                                      | 230,629 (67,800)                       |                | 230,629 (67,800)                    |                | 230,629 (67,800)                         |              |
| Log pseudolikelihood   | -183,690.13                            |                | -205,376.73                         |                | -202,527.58                              |              |

**Notes:** Data source: ECHP 1994-2001; \*  $0.1 > p \geq 0.05$ ; \*\*  $0.05 > p \geq 0.01$ ; \*\*\*  $p < 0.01$ .

## Appendix

**Table 4:** Variable description table

| Variable  | Description   |
|---|---|
| <b>Dependent variables</b>                      |   |
| Job satisfaction with type of work              | Dependent variable varies from 1 to 3 showing a scale of job satisfaction with present job in terms of type of work. Thus, this variable equals 1 for individuals who are not satisfied with their present job and 3 for satisfied individuals. |
| Job satisfaction with earnings                  | Dependent variable varies from 1 to 3 showing a scale of job satisfaction with present job in terms of earnings. Thus, this variable equals 1 for individuals who are not satisfied with their present job and 3 for satisfied individuals.     |
| Job satisfaction with job security              | Dependent variable varies from 1 to 3 showing a scale of job satisfaction with present job in terms of job security. Thus, this variable equals 1 for individuals who are not satisfied with their present job and 3 for satisfied individuals. |
| <b>Independent variables</b>                    |   |
| <i>Hypothesis-related independent variables</i> |   |
| 1. From PrE to SE                               | Dummy equals 1 for individuals who are private paid employees in period $t-1$ and become self-employed in period $t$ .  |
| 2. Remaining the same job as PrE                | Dummy equals 1 for individuals remaining on his/her same private paid employment position in periods $t-1$ and $t$ .  |
| 3. From PrE to new PrE spell                    | Dummy equals 1 for individuals who are private paid employees in period $t-1$ and start a new private paid employment spell in period $t$ .   |
| 4. Remaining the same job as SE                 | Dummy equals 1 for individuals remaining on his/her same self-employment position in periods $t-1$ and $t$ .  |
| 5. From SE to new SE spell                      | Dummy equals 1 for individuals who are self-employed in period $t-1$ and start a new self-employment spell in period $t$ .  |
| <i>Control variables: employment dynamics</i>   |   |
| 6. From PrE to PuE                              | Dummy equals 1 for individuals who are private paid employees in period $t-1$ and become public paid employees in period $t$ .  |
| 7. From SE to PrE                               | Dummy equals 1 for individuals who are self-employed in period $t-1$ and become private paid employees in period $t$ .  |
| 8. From SE to PuE                               | Dummy equals 1 for individuals who are self-employed in period $t-1$ and become public paid employees in period $t$ .   |
| 9. From PuE to SE                               | Dummy equals 1 for individuals who are public paid employees in period $t-1$ and become self-employed in period $t$ .   |
| 10. From PuE to PrE                             | Dummy equals 1 for individuals who are public paid employees in period $t-1$ and become private paid employees in period $t$ .  |
| 11. Remaining the same job as PuE               | Dummy equals 1 for individuals remaining on his/her same public paid employment position in periods $t-1$ and $t$ .   |
| 12. From PuE to new PuE spell                   | Dummy equals 1 for individuals who are public paid employees in period $t-1$ and start a new public paid employment spell in period $t$ .   |
| 13. From U to SE                                | Dummy equals 1 for individuals who are unemployed in period $t-1$ and become self-employed in period $t$ .  |
| 14. From U to PrE                               | Dummy equals 1 for individuals who are unemployed in period $t-1$ and become private paid employees in period $t$ .   |
| 15. From U to PuE                               | Dummy equals 1 for individuals who are unemployed in period $t-1$ and become public paid employees in period $t$ .  |
| 16. From I to SE                                | Dummy equals 1 for individuals who are inactive in period $t-1$ and become self-employed in period $t$ .  |
| 17. From I to PrE                               | Dummy equals 1 for individuals who are inactive in period $t-1$ and become private paid employee in period $t$ .  |
| 18. From I to PuE                               | Dummy equals 1 for individuals who are inactive in period $t-1$ and become public paid employee in period $t$ .   |
| <i>Demographic characteristics</i>              |   |
| Age   | Age of the individual, ranging from 18 to 65.   |
| Cohabiting                                      | Dummy equals 1 for cohabiting individuals.  |
| Number of children under 14                     | Number of children aged under 14 living in the household.   |
| Health status                                   | Variable ranging from 1 to 5; the scale refers to the level of health and equals 1 for individuals whose health is very good and 5 for individuals whose health is very bad.  |

|                                 |   |
|---------------------------------|---|
| <i>Education</i>                |   |
| Basic education                 | Dummy equals 1 for individuals with less than second stage of secondary level education (ISCED 0-2).  |
| Secondary education             | Dummy equals 1 for individuals with second stage of secondary level education (ISCED 3).  |
| Tertiary education              | Dummy equals 1 for individuals with recognized third level education (ISCED 5-7).   |
| <i>Job characteristics</i>      |   |
| Hours of work                   | Hours of work per week.   |
| <i>Incomes</i>                  |   |
| Annual earnings $t-1$ (in logs) | Net work incomes, either from paid-employment or self-employment, earned during period $t-1$ , converted to average euros of 1996, being corrected by purchasing power parity (across countries) and harmonised consumer price index (across time). Variable expressed in natural logarithms.   |
| <i>Business sector dummies</i>  |   |
|                                 | 18 dummies equalling 1 for individuals whose codes of main activity of the local unit of the business, by means of the Nomenclature of Economic Activities (NACE-93), are the following:<br>A+B ( <i>ref.</i> ) Agriculture, hunting and forestry, fishing.<br>C+E Mining and quarrying + Electricity, gas and water supply.<br>DA Manufacture of food products, beverages and tobacco.<br>DB+DC Manufacture of textiles, clothing and leather products.<br>DD+DE Manufacture of wood and paper products; publishing and printing.<br>DF-DI Manufacture of coke, refined petroleum/chemicals/rubber/plastic and other non-metallic mineral products.<br>DJ+DK Manufacture of metal products, machinery and equipment.<br>DL-DN Other manufacturing.<br>F Construction<br>G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal/household goods.<br>H Hotels and restaurants.<br>I Transport, storage and communication.<br>J Financial intermediation.<br>K Real estate, renting and business activities.<br>L Public administration and defence; compulsory social security.<br>M Education.<br>N Health and social work.<br>O-Q Other community, social and personal service activities; private households with employed persons; extra-territorial organizations and bodies. |
| <i>Country dummies</i>          | 14 dummies equalling 1 for individuals living in the named country: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain ( <i>ref.</i> ), and the United Kingdom.  |
| <i>Year dummies</i>             | 8 dummies equalling 1 for observations referring to each of the periods covered by the sample: 1994 ( <i>ref.</i> ), 1995, 1996, 1997, 1998, 1999, 2000 and 2001.   |

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**Table 5:** Descriptive statistics for relevant groups

| <b>Group</b>                              | <b>All workers</b> | <b>From PrE to SE</b> | <b>Remaining<br/>the same job as PrE</b> | <b>From PrE<br/>to new PrE spell</b> | <b>Remaining<br/>the same job as SE</b> | <b>From SE<br/>to new SE spell</b> |
|---|--------------------|-----------------------|--|--------------------------------------|---|------------------------------------|
| Number of observations                    | 230,629            | 2,231                 | 106,503                                  | 10,792                               | 40,367                                  | 729                                |
| Number of individuals                     | 67,800             | 2,136                 | 34,133                                   | 8,457                                | 12,028                                  | 684                                |
| <i>Job Satisfaction with type of work</i> |                    |                       |  |                                      |   |                                    |
| JS with type of work = 1                  | 6.61%              | 7.44%                 | 6.02%                                    | 8.72%                                | 7.60%                                   | 7.41%                              |
| JS with type of work = 2                  | 39.54%             | 39.62%                | 40.01%                                   | 39.06%                               | 40.88%                                  | 43.90%                             |
| JS with type of work = 3                  | 53.84%             | 52.94%                | 53.97%                                   | 52.22%                               | 51.51%                                  | 48.70%                             |
| <i>Job Satisfaction with earnings</i>     |                    |                       |  |                                      |   |                                    |
| JS with earnings = 1                      | 18.42%             | 21.47%                | 16.72%                                   | 18.46%                               | 24.74%                                  | 24.28%                             |
| JS with earnings = 2                      | 55.83%             | 56.34%                | 55.86%                                   | 51.98%                               | 57.86%                                  | 58.44%                             |
| JS with earnings = 3                      | 25.75%             | 22.19%                | 27.42%                                   | 29.56%                               | 17.40%                                  | 17.28%                             |
| <i>Job Satisfaction with job security</i> |                    |                       |  |                                      |   |                                    |
| JS with job security = 1                  | 12.13%             | 16.90%                | 9.74%                                    | 20.03%                               | 14.10%                                  | 17.15%                             |
| JS with job security = 2                  | 39.16%             | 46.53%                | 40.99%                                   | 42.10%                               | 45.77%                                  | 49.93%                             |
| JS with job security = 3                  | 48.71%             | 36.58%                | 49.27%                                   | 37.87%                               | 40.12%                                  | 32.92%                             |
| <i>Demographic characteristics</i>        |                    |                       |  |                                      |   |                                    |
| Female                                    | 38.11%             | 22.64%                | 36.37%                                   | 34.54%                               | 24.56%                                  | 24.28%                             |
| Age                                       | 39.55 (11.01)      | 38.24 (10.78)         | 38.72 (10.44)                            | 32.46 (9.66)                         | 45.03 (10.53)                           | 38.33 (10.20)                      |
| Cohabiting                                | 73.81%             | 73.02%                | 74.17%                                   | 59.30%                               | 83.21%                                  | 73.39%                             |
| Number of children under 14               | 0.63 (0.90)        | 0.67 (0.92)           | 0.63 (0.89)                              | 0.59 (0.88)                          | 0.64 (0.93)                             | 0.69 (0.89)                        |
| Health status                             | 1.96 (0.77)        | 1.93 (0.77)           | 1.97 (0.75)                              | 1.86 (0.72)                          | 2.01 (0.82)                             | 1.86 (0.78)                        |
| <i>Education</i>                          |                    |                       |  |                                      |   |                                    |
| Basic education ( <i>ref.</i> )           | 41.58%             | 49.66%                | 42.06%                                   | 44.25%                               | 56.27%                                  | 48.97%                             |
| Secondary education                       | 37.82%             | 31.87%                | 40.73%                                   | 38.70%                               | 29.19%                                  | 31.96%                             |
| Tertiary education                        | 20.60%             | 18.47%                | 17.21%                                   | 17.06%                               | 14.54%                                  | 19.07%                             |
| <i>Job characteristics</i>                |                    |                       |  |                                      |   |                                    |
| Hours of work                             | 41.22 (11.32)      | 46.79 (13.73)         | 39.99 (8.28)                             | 40.52 (9.15)                         | 51.20 (14.73)                           | 49.48 (13.98)                      |
| <i>Incomes</i>                            |                    |                       |  |                                      |   |                                    |
| Annual earnings <i>t-1</i> (€)            | 12,851 (14,097)    | 5,452 (9,625)         | 14,248 (9,143)                           | 10,464 (7,899)                       | 12,552 (26,731)                         | 7,782 (19,077)                     |

**Notes:** Standard deviations for continuous explanatory variables in parentheses.

Data source: ECHP 1994-2001.