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**Self-Employment Choice in Portugal: How Different are  
Women from Men**

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**Resumo/Abstract:**

Female self-employment has been increasing steadily over the last years in many countries. However, not much is known about women's decision to become self-employed, especially in Europe. Some few studies typically conclude that most women choose self-employment because it offers more flexibility to combine work and family responsibilities or because of discrimination. Portugal displays one of the highest rates of self-employment in Europe and is one of the countries where the number of self-employed women has increased more. This paper studies gender differences in the determinants of self-employment in Portugal. Unlike other countries, there is no evidence that women choose self-employment because of family reasons. However, there are some suggestions that the choice of self-employment is driven by economic necessity, particularly in the case of women.

**Palavras-chave/Keywords:** Occupational Choice, Self-employment, Gender differences

**Classificação JEL/JEL Classification:** J23, J16

## **I. INTRODUCTION**

In recent years self-employment has been receiving a great deal of attention in the literature. This is mainly due to the increase in self-employment in many countries. Indeed, in several countries self-employment has become a significant source of job creation and started to be considered as a valid alternative to wage employment.

Self-employment has been mainly a male phenomenon. In fact, in most countries the number of women in self-employment is considerably smaller than of the men. Nevertheless, the number of women self-employed has been increasing steadily, particularly in some European countries. In spite of this, not much is known about female self-employment in Europe.

The promotion of self-employment is part of the guidelines of the European Employment Strategy. It is also mentioned in the European Employment Strategy the need to ensure equal opportunities for women and men, in particular in what concerns setting up new business. Accordingly, several member states in the EU have been developing policies to encourage self-employment, both to help the unemployed and to stimulate the creation of small business in order to provide more employment opportunities in the future.

It is important to understand the factors that motivate individuals to become self-employed in order to help constructing appropriated policies to promote and support entrepreneurship. However, most of the previous literature in self-employment have not analysed women decision to become self-employed. It is well known that there are differences in the labour market decisions and opportunities between men and women, due to different factors like discrimination, labour market segmentation or different work experiences. In fact, women face constraints in their labour market decisions that men do not face. As a consequence, it is expected that there are clear gender differences on the transitions to self-employment.

This work aims at investigating the reasons that influence women's decision to become self-employed and to determine how different women are from men. In

particular, we analyse the possible gender differences in self-employment decision in Portugal. Portugal is one the countries in Europe with the highest share of self-employment in industry and services (according to Eurostat, 2002, only Greece and Italy display a highest rate of non-agricultural self-employment), and the share of women in self-employment in Portugal is more important than in most EU countries (again after Italy and Greece). In addition, Portugal displays one of highest rates of female participation in the labour market in Europe.

**Table 1. Share of Self-employment in Portugal and EU**

		1986	1990	1995	2000	2004
	<i>Pt</i>	26.2	25.8	25.8	23.6	24.4
Total Self-employment(a)	<i>EU-15(*)</i>	15.5	15.7	15	14.1	14.7
	<i>Pt</i>	15.5	16.2	19.1	17.0	17.2
Self- Emp. Industry and Services(b)	<i>EU-15(*)</i>	12.5	13.1	12.9	12.5	13.2

Source: Author's calculations based on data from Eurostat

(a) % of total employment

(b) % Total employment in Industry and services

(\*) 1986 and 1990 refers to EU-12

Portugal is also one of the few countries where self-employment has been increasing faster than paid-employment. Between 1986 and 2004 the number of self-employed in industry and services increased by 50% while the number of paid-employment in the same sectors rose only by 33%. Women account for most of self-employment growth, as female self-employment increased around 78% compared with 40% for men in the same period.

These developments in the Portuguese labour market make it interesting to study the characteristics of this phenomenon in Portugal and in particular the gender differences in self-employment.

In the next section we present a review of the main factors that have been suggested as possible explanations of self-employment decision. We pay special attention to the studies on female self-employment. In section III we present the econometric framework of analysis and the data. Section IV we discuss the results. Section V concludes.

## **II. SELF-EMPLOYMENT DETERMINANTS: THE EMPIRICAL LITERATURE**

There have been a vast number of empirical studies on self-employment and its causes for many countries. These studies have identified several determinants that may influence self-employment choice. One factor typically referred in the literature is the earnings differential between self-employment and paid-employment. Most studies conclude that higher earnings in self-employment relatively to paid-employment positively influence the decision to become self-employed (see for example Fujii and Hawley, 1991, Bernhardt, 1994; Taylor,1996). Some others have considered the importance of liquidity constraints, and most found evidence that individuals with greater assets and with more access to financial capital are more likely to move into self-employment (for example Evans and Leighton,1989; Blanchflower and Oswald, 1998; Holtz-Eakin et al, 1994).

Other studies have focused on the idea that individuals' opportunities in the labour market may determine their option for self-employment. Several authors have suggested the role of "push" factors like unemployment, poverty, low wages in paidwork or frequency of job changes (for example Evans and Leighton ,1989; Albaramirez, 1994; Carrasco, 1999 or Moore and Mueller, 2002). Within this approach labour market discrimination has been also considered as determinant of self-employment (Borjas and Bronars, 1989; Fairlie and Meyer, 1996; Clark and Drinkwater, 1998).

Several authors have also uncovered evidence on the importance of other factors like intergenerational transfers of entrepreneurial ability (for example Taylor, 1996 and Dunn and Holtz-Eakin, 2000) or taxation, claiming that individuals that pay more taxes have a higher probability to become self-employed (for example Moore, 1983 Robson and Wren, 1999 and Bruce, 2000).

Most empirical literature focuses on male self-employment. Among the papers that have considered gender differences, some have pooled women and men together, employing a single dummy variable to capture differences between men and women

(De Wit and Van Winden, 1990, Blanchflower and Meyer, 1994, Blanchflower, 2000). However, this approach assumes that all the factors have the same effect for both genders, allowing only differences in the intercept.

Several other studies have specifically analysed aspects of women in self-employment. Most of those concentrate on the US and, in general, conclude that women choose self-employment due to higher flexibility on combining family and work. Connelly (1992) as well as Boden (1999b) found that women with young children are more likely to become self-employed. Moreover, Boden (1999a) claims that gender wage inequality increases the probability of women to become self-employed as well. Clain (2000) also argues that women place more value on non-wage aspects of self-employment than men do. Hundley (2000) focus on the earnings differences between self-employment and paid-employment for both women and men, concluding that for women self-employment earnings decline with marriage and children, while the opposite occurs for men. He concludes that men tend to choose self-employment to achieve higher earnings and women to facilitate household activities. However, Lombard (2001) finds that, although job flexibility and demand for non-standard work schedules are important, most of the growth in female self-employment is due to women's increased earnings potential in self-employment. Analysing African-American and Hispanic Women in the US, Taniguchi (2002) found that the effect of children is mixed, which reveals significant ethnic and racial differences on the determinants of self-employment.

Evidence for other countries and in particular for European countries is scarce. For Canada, Moore and Mueller (2002) and Simpson and Sproule (1998), argue that for women there is more evidence in favour of the "push" hypothesis in the decision to move into self-employment than for men. Georgellis and Wall (2004) analysed the German case and find that women are less responsive to earnings differences between the two labour status than men are. He argues that for women self-employment is a closer substitute for part-time work and labour market inactivity than for men due to differences in labour market opportunities and occupational strategies. Rosti and Cheli (2005) consider the Italian case and applying a markovian analysis conclude that women choose self-employment due to discrimination in the labour market. Lohmann (2001) considers several European countries (France, Germany, Italy,

Sweden and UK) and the US concluding that for all the countries self-employment offers women more flexibility to combine work and family.

For Portugal, not much is known about self-employment and in particular about female self-employment. One exception is Galego (1998) where some aspects of women's decision to become self-employed are analysed for the period 1993-1994, concluding that most women that move into self-employment originate from unemployment or inactivity and also display a history of labour market instability. Therefore there was some evidence that women, unlike men, decided to become self-employed due to economic necessity. In this paper, we will consider a different methodology and update the analysis using more recent data (for the years 1998 and 2000).

### **III. EMPIRICAL FRAMEWORK AND DATA**

#### **3.1. Framework of analysis**

To motivate our empirical work we assume that the individual has three choices in the labour market, to move into self-employment (SE), to become paid employed (PE) or not to work (NE). The individual maximizes expected utility and therefore the decision depends on several factors that determine utility in each option. Within this framework individual  $i$  will choose self-employment if the utility acquired in this occupation ( $U^{SE}$ ) is higher than in the other options. Therefore, an individual will make a transition into self-employment if:

$$U^{SE} > U^j, j=PE,NE$$

We analyse the probability of making that transition conditioned on being previously in paid-employment and previously in no-employment. The conditional probability of making a transition can be estimated by a multinomial logit model. Therefore, considering the case of an individual in paid-employment, he/she may move into self-employment, no-employment or to stay in paid-employment, and we have:

$$\Pr[I_i = j] = \frac{\exp(\beta_j' X_i)}{[1 + \sum_{k=1}^2 \exp(\beta_k' X_i)]}, j = 1, 2$$

$$\Pr[I_i = 0] = \frac{1}{[1 + \sum_{k=1}^2 \exp(\beta_k' X_i)]}$$

$I_i^j$  is an indicator variable taking the value 1 if the individual moves into self-employment from paid-employment, 2 if moves into no-employment, and 0 if does not move from paid-employment.

We assume that utility depends on a vector of individual characteristics and labour market characteristics. Hence  $X_i$  represents several explanatory variables, including the difference in expected earnings from self-employment and wage-employment, as well as demographic, economic and regional variables.

As we need expected earnings from self-employment and from paid employment we previously estimate, separately over the sample of paid employees and self-employed, standard Mincer-type earnings functions. We include as regressors both individual and sectoral variables that are assumed to affect earnings<sup>1</sup>.

The econometric problem in estimating these equations is that an individual is only working in one of the occupations at any given time, and so his/her earnings in each of them are not observed. In fact, if an individual is working in self-employment we only observe his earnings in this sector and not in paid-employment. Moreover, for individuals that are not working we do not observe any of two types of earnings. Thus the sample is clearly non random and we take this fact into account by estimating earnings equations corrected for selectivity bias using the polychotomous choice selectivity model proposed by Lee (1983)<sup>2</sup>.

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<sup>1</sup> The explanatory variables included in the earnings equations were age, age squared, marital status, educational dummies, regional dummies, industry dummies and a dummy for professional occupations.

<sup>2</sup> The number of children, other individuals working in the household and a dummy for the presence of self-employed in the household were used to identify the selectivity term and therefore were included in the multinomial logit and excluded from the earnings equations.



### 3.2. Data

In this work we use data from a national representative survey in Portugal conducted by the National Institute of Statistics (INE). More specifically, we use individual data from the Quarterly Labour Force Survey for the first quarter of the years 1998 and 2000. The survey is based on household enquiries, where everyone in the household is questioned about their current status in the labour market and personnel characteristics as well as on their previous status and about their situation one year before. Each quarter INE inquires a random sample of individuals where about one sixth of the sample is rotate out, so that each individual is included in the sample for 7 Quarters. Therefore, in our pooled sample given the distance in time between the two quarters considered in this work the two sub-samples can be considered as independent.

In order to analyse the transitions into self-employment, we consider individuals that were in active age between 15 and 65 years old, and which were not unpaid workers, studying or in military service and that were not retired one year before the survey took place. Also, we did not consider the agricultural sector. The analysis is restricted to those who were either paid-workers or not employed the year before the inquiry. Consequently, our data comprises for men a total of 15307 paid-workers and of 2007 not employed and for women a total of 12956 paid-workers and of 4823 not employed. In the case of men, 331 individuals entered self-employment whereas for women 186 moved into self-employment. For both genders most transitions into self-employment originate on paid-employment, but the percentage is higher in the case of men (69,5% for men and 56,4% for women).

Following previous literature, the explanatory variables included in the analysis are demographic, economic and regional variables. Specifically we include age, marital status, education, occupational and training dummies, variables reflecting the family structure and income (number of children, the number of other dependents in the household, the presence of other working individuals and the difference in expected earnings), as well as regional dummies and demographic density of the place where the individual was working in the previous year. The presence of other self-employed individuals in the household might be also an important factor and therefore we add a

dummy reflecting this situation. For paid workers we consider a dummy for those in permanent contracts and for no-employed a dummy for those not searching for a job in the previous year. Finally, we include the job tenure for those on paid-employment one year ago and the duration of no-employment for those not working the previous year. Variables definition can be seen in appendix.

#### **IV. ANALYSIS OF RESULTS**

The results from the multinomial logit to model the transitions out of paid work and out of no-employment for both men and women can be seen in tables 2 and 3. The model was estimated by maximum likelihood and in order to correct for problems of heteroscedasticity robust standard deviations were computed.

Previous studies on female self-employment in other countries in Europe have emphasized that women place higher weight on the non-pecuniary aspects of self-employment when deciding whether to become self-employed or not. In particular, women seem to choose self-employment in order to better combine work and family responsibilities. If that is also the case in Portugal, we expect family variables, like number of children, marital status, and existence of other dependents in the household, to be more significant for women than for men. Moreover, the expected earnings differential should not be important for women's decision. On the other hand, if women choose self-employment mainly due to economic necessity then we expect women that choose self-employment to be less educated and with less job stability. In addition, higher predicted earnings in self-employment in relation to paid-employment should not be significant in women's decision.

Analysing first the transitions out of paid-employment (table 2), we conclude that there are not many differences between men and women that choose to become self-employed. In both cases, when compared with paid-workers the individuals that become self-employed seem to be older, less educated, professional workers and with no permanent contract in their previous job.

Some of these results are not in accordance with most previous findings. In fact, most previous studies typically conclude that individuals that choose self-employment are more educated than those in paid employment (for example Carrasco, 1999; Moore and Mueller, 2002 or Lohmann, 2001). One exception is Lombard (2001) that concludes that the probability of self-employment is higher for less educated women. On the other hand, most researches have found that self-employed tend to be older, which is consistent with the present findings. This result is usually associated with the availability of financial resources as well as the need to acquire experience.

The coefficients on the number of children and marital status are positive and significant for men but not for women. According to the results, these variables seem to influence more the women's decision to make a transition into no-employment than the decision to become self-employed. In addition, for both genders, the presence of other dependents in the household, like elderly family members is not significant in the choice of self-employment. However, it is significant and positive for the transitions into no-employment.

The expected difference in earnings between paid-employment and self-employment is also not significant for women. For men the variable is significant and positive which suggests that male individuals that choose self-employment have higher expected earnings in paid-employment than in self-employment. It seems therefore that both men and women previously in paid-employment decide to become self-employed for other reasons than higher expected earnings.

Another variable of interest is the tenure in the job, as longer tenures are expected to be negatively correlated with transitions out of paid-work for both no-employment and self-employment. The results confirm that hypothesis for both men and women. As mentioned before, workers in permanent contracts also display a smaller probability of choosing to be self-employed. Therefore, individuals with more job stability are less willing to go into self-employment.

**Table 2 Transitions from Paid Employment**  
**Multinomial Logit ML Estimates**

	FEMALES		MALES	
	SE	NE	SE	NE
Age	0.152** (0.072)	-0.097* (0.018)	0.056 (0.050)	-0.0097 (0.0193)
Age <sup>2</sup>	-0.002*** (0.0009)	0.001* (0.0002)	-0.0009 (0.0006)	0.0002 (0.0003)
Married	0.215 (0.288)	0.335* (0.081)	0.586* (0.253)	-0.308* (0.0919)
Education6	-0.178 (0.299)	-0.243* (0.082)	0.237 (0.1898)	0.1099 (0.0847)
Education9	0.036 (0.306)	-0.304* (0.097)	-0.191 (0.245)	0.030 (0.102)
Education12	-0.887*** (0.469)	-0.798* (0.112)	-0.568*** (0.331)	-0.205 (0.135)
Education15	-1.344* (0.531)	-0.985* (0.179)	-1.371* (0.410)	-0.701* (0.206)
Nchild5	0.051 (0.207)	0.209* (0.064)	0.197*** (0.118)	-0.073 (0.076)
Ochild	-0.063 (0.146)	0.0286 (0.038)	0.058 (0.075)	0.115* (0.036)
Otherself	0.334 (0.238)	0.0477 (0.073)	0.316 (0.222)	-0.279* (0.098)
Otherdepends	-0.050 (0.109)	0.073** (0.0299)	-0.133 (0.081)	0.086* (0.0286)
Other working	0.097 (0.347)	-0.324* (0.086)	-0.211 (0.183)	-0.0727 (0.0797)
Training	0.484 (0.321)	0.279* (0.1005)	-0.276 (0.291)	0.318* (0.106)
Professional worker	1.045* (0.407)	-0.039 (0.141)	1.113* (0.216)	0.0278 (0.127)
Population density	0.067 (0.135)	-0.135* (0.034)	-0.0787 (0.102)	0.138** (0.055)
Job Tenure	-0.059* (0.016)	-0.085* (0.008)	-0.028* (0.0096)	-0.070* (0.006)
Earnings difference	0.082 (0.219)	0.046 (0.054)	1.021** (0.431)	0.716* (0.231)
Permanent contract	-0.883* (0.261)	-1.589* (0.067)	-0.479* (0.187)	-1.666* (0.0696)
Log likelihood	-4663.5916		-5190.6417	
N	12956		15307	

Notes: Paid-employment is the reference category. Regional and year dummies were also included but are not reported. Robust standard deviations are in parentheses.

(\*), (\*\*) and (\*\*\*) Denotes values significant at 1%, 5% and 10% level, respectively

Finally, the presence of other self-employed in the family in the year previous to the transition has a positive effect on the probability of becoming self-employed, although not significant. This result is consistent with previous literature that found that having a father that is self-employed has a significant and positive effect on the probability of self-employment (see Dunn and Holtz-Eakin, 2000 or Georgellis and Wall, 2004).

When analysing the transitions into self-employment conditioned in being in no-employment in the previous year, we can conclude that there more differences between men and women than in the case of transitions out of paid-work (Table 3).

As in the previous case, when comparing with the individuals that made a transition into paid work, individuals that choose self-employment are older, less educated and tend to be professional workers. However, these differences between self-employed and paid-employed are only significant for men.

As for family variables, marital status is positive and significant for both genders whereas the number of children and the presence of other dependents in the household are never significant. Therefore, family related reasons do not seem to determine self-employment choice for those in no-employment.

Another important difference between men and women is the influence of the expected earnings differential in the probability of becoming self-employed. The variable is negative and significant for women and negative but not significant for men. This indicates that higher expected earnings in self-employment in relation to paid-employment are important to women, which are not working, to decide to set up their own business. There is much less evidence for men in the same situation.

The duration of no-employment is also of interest, as for women the results indicate that the longer the time with no work the higher the probability of choosing self-employment, which is consistent with the view of economic necessity. Moreover, the fact that, for both genders, the presence of others working in the household has a negative and significant effect on the probability of becoming self-employed (when compared to paid-employment), also suggests that poor economic conditions may be driving individuals into self-employment.

**Table 3 Transitions from No-Employment  
Multinomial Logit ML Estimates**

	FEMALES		MALES	
	SE	NE	SE	NE
Age	0.094 (0.095)	-0.108* (0.035)	0.149*** (0.078)	-0.011 (0.042)
Age <sup>2</sup>	-0.0006 (0.001)	0.002* (0.0005)	-0.001 (0.00099)	0.001** (0.0005)
Married	1.326* (0.411)	0.703* (0.142)	0.664** (0.313)	-0.615* (0.164)
Education6	-0.130 (0.325)	0.068 (0.137)	0.655** (0.285)	-0.0379 (0.154)
Education9	-0.109 (0.411)	-0.394** (0.164)	-0.019 (0.393)	-0.225 (0.1696)
Education12	-0.458 (0.461)	-0.088 (0.208)	-0.060 (0.437)	-0.776* (0.260)
Education15	-0.729 (0.631)	-0.897* (0.283)	-0.045 (0.5077)	-1.802* (0.417)
Nchild5	-0.0098 (0.2717)	0.348* (0.097)	-0.275 (0.260)	0.043 (0.128)
Ochild	-0.085 (0.136)	0.035 (0.0599)	0.0116 (0.130)	-0.162** (0.073)
Otherself	0.315 (0.306)	0.340* (0.129)	0.887* (0.296)	0.136 (0.158)
Otherdepends	-0.020 (0.127)	0.160* (0.053)	0.0415 (0.116)	0.076 (0.054)
Other working	-0.7599** (0.330)	-0.051 (0.152)	-0.524*** (0.276)	-0.178 (0.135)
Training	0.326 (0.424)	0.043 (0.193)	0.535 (0.325)	-0.183 (0.202)
Professional worker	0.579 (0.422)	0.188 (0.208)	1.181* (0.297)	0.348*** (0.194)
Population density	-0.072 (0.180)	0.290* (0.073)	-0.164 (0.206)	0.036 (0.086)
Earnings difference	-1.112** (0.447)	1.0186* (0.153)	-0.626 (0.887)	-0.467 (0.458)
Duration of no-employment	0.110* (0.036)	.0157* (0.022)	-0.062 (0.074)	0.145* (0.030)
Not Searching for Job	0.662*** (0.359)	2.087* (0.188)	0.861*** (0.443)	1.748* (0.227)
Log likelihood	-1617.9024		-1323.7373	
N	4823		2007	

Notes: Paid-employment is the reference category. Regional and year dummies were also included but are not reported. Robust standard deviations are in parentheses.

(\*), (\*\*) and (\*\*\*) Denotes values significant at 1%, 5% and 10% level, respectively

For both men and women, not to be searching for a job in the previous year seems to increase the probability of choosing self-employment in relation to paid-employment. This may imply that individuals that are discouraged in the labour market tend to turn into self-employment. Another explanation is that individuals were already preparing to set up their own business and therefore were not looking for a job.

Finally, as in the case of the transitions out of paid-employment, the presence of other self-employed in the household has a positive effect on the probability of becoming self-employed, but with more evidence in the case of men.

## **V. FINAL REMARKS**

The vast majority of self-employed workers are men, but the number of women in self-employment has been increasing considerably. Countries differ in general opportunities and constraints for paid-employment and self-employment as well on institutional settings (like welfare state regimes) that might influence female and male decisions in the labour market. Therefore, it is important to further study gender differences in self-employment in several countries, namely in Europe. In this paper we analyse one country in Europe that displays a high rate of self-employment as well as a high representation of women.

Previous studies about other European countries have concluded that non-pecuniary aspects of self-employment – e.g. flexible working hours- are particularly attractive to women. Family obligations, especially for women with young children, seem to affect women's propensity to become self-employed. Furthermore, earnings differentials between paid and self-employment seem to be more important to men. The results in this study do not provide evidence in favour of these hypotheses in Portugal.

Yet, there are some suggestions that the choice of self-employment might be a response to poor labour market opportunities, particularly in the case of women. In fact, there is a higher percentage of women making a transition into self-employment that originate on no-employment. Moreover, the results show that women who experienced longer spells in no-employment are more likely to become self-employed

in comparison with paid-employment. On the other hand, for those who are in paid-employment, one can conclude that both men and women with more job instability display a higher probability to move into self-employment.

One final conclusion is that there are some differences in the processes that lead non-employed and employed workers into self-employment. Hence, it does appear that individuals choose self-employment for a variety of reasons and that there are some gender differences in the decision to become self-employed in Portugal.

The reasons motivating individuals to become self-employed seem to be not equal for all the countries in Europe and this should be considered in the policies to support entrepreneurship. Particularly in the case of Portugal if it is true that unfavourable economic conditions are driving individuals into self-employment, then it is possible those individuals to have less success in their business. Hence, policies should focus on reducing the probability of business failure and on improving the quality of self-employment.



## Appendix: Variable Definitions

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Age	Age of individual
Age <sup>2</sup>	Age squared
Married	Dummy variable: 1 if individual is married, 0 otherwise
Education6	Dummy variable: 1 if individual has 6 years of education
Education9	Dummy variable: 1 if individual has 9 years of education
Education12	Dummy variable: 1 if individual has 12 years of education
Education15	Dummy variable: 1 if individual has 15 years of education
Nchild5	Number of children under 5 years old
Ochild	Number of other children (between 5 and 18 years old)
Otherself <sub>t-1</sub>	Dummy variable: 1 if other individual in the household was self-employed
Otherdepends <sub>t-1</sub>	Number of other dependents in the household (e.g. elderly persons)
Other working <sub>t-1</sub>	Dummy variable: 1 if other individual in the household was working
Training	Dummy variable: 1 if individual has attended professional training
Professional worker	Dummy variable: 1 if individual is a professional worker <i>(Professional occupation includes teachers, principals, doctors, pharmacists, lawyers, architects, pilots, stewardess, administrators, accountants, engineers)</i>
Population density <sub>t-1</sub>	Population density of the council where the individual was living the previous year
Job Tenure <sub>t-1</sub>	Number of years in the job
Earnings difference	Estimated difference between wage-employment and self-employment monthly earnings
Permanent contract <sub>t-1</sub>	Dummy variable: 1 if individual has a permanent contract in t-1
Duration of no-employment <sub>t-1</sub>	Time in no-employment
Not Searching for Job <sub>t-1</sub>	Dummy variable: 1 if the individual was not looking for job in t-1

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