

LABOUR MARKETS

A bivariate probit model for the analysis of fertility and women's decisions of abandoning the labour market

AINHOA HERRARTE (*Autonomous University of Madrid, Spain, ainhoa.herrarte@uam.es*)

JULIÁN MORAL-CARCEDO (*Autonomous University of Madrid, Spain, julian.moral@uam.es*)

FELIPE SÁEZ-FERNÁNDEZ (*Autonomous University of Madrid, Spain, felipe.saez@uam.es*)

In any country the main reason which explains the large increase in the female labour participation is related to the rise in their educational level; because its' positive effect on higher wages, and consequently, on higher opportunity cost of working at home. These changes have led to increases in the time that women want to offer in the labour market and, logically, to reductions in the time they want to dedicate to household production. The gradual incorporation of women into the labour market has affected their role in society and politicians have recently realised their relevance in the economy and have promoted a change in their policies. At this moment, every developed country has designed measures whose aim is to increase women's activity rates and to reconcile work and family.

Despite these measures, fertility has yet a clear negative effect on female labour participation as it implies the necessity of dedicating more time to children care. Particularly, data for the Spanish case about labour transition flows in 2004 show that more than 20% of women abandon the labour market after having a newborn baby, while this percentage is near 7% if they don't. However, men who have a newborn, abandon the labour market only in 1.6% of the cases and 1.2% if they don't have children.

The main objective of this article is to analyse how fertility affects such labour decisions. Any study which analyses the female labour market participation decision has to include the existence of children in the household and the age of these children as explanatory variables. Nevertheless, it is well known that women usually take care of children not only by their traditional social role but also due to their preferences for children. In this sense many recent studies point out that fertility is also an endogenous variable which depends on the activity rate. In other words, there are some unobservable characteristics that affect the fertility rate and the participation decision: probably women participating in the labour market have fewer preferences for children than women that do not.

Considering this, in this paper we analyse the effect of having a newly born child on the woman's decision of abandoning the labour market; considering that abandoning the labour market and having a baby are probably joint decisions. To correct this endogenetic problem we apply a bivariate probit model. We analyse

individual data from the Spanish Labour Force Survey from 2001 to 2004. Our results show that having a newborn increases the woman's probability of abandoning the labour market but decreases with the existence of public services as kindergartens.

Keywords: bivariate probit model, female labour transitions to inactivity, fertility, reconcile work and family