

## **Does Economic uncertainty affect fertility? Evidence from France**

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### *Summary:*

This paper examines the impact of unemployment and insecure working conditions on the propensity and timing of parenthood in France, where fertility stands at a rather high level despite a high rate of youth unemployment. Does an insecure employment spell affect fertility plans? Is fertility merely delayed or is completed fertility also affected? Does economic uncertainty have similar effects for men and women? Logit model (on desire), life-event models (on timing) and least square models (on completed fertility) are implemented on *Family and Employer survey* data (INED-2004). Job history with unemployment reduces completed fertility by affecting the overall timing of births. Short-term jobs have a weaker effect, except on male fertility plans. Female and male childbearing desires have different determinants, because of prevailing social norms. Fertility timing, desires and then completed fertility are the result of a negotiation in which the employment uncertainty of each partner plays a role.

### *Extended abstract*

The increase in the age at first parenthood has been raised as a key factor in explaining the fertility decline in many European countries. Economic uncertainty is considered in many recent studies as one of the main explanations for the postponement of family formation (Blossfeld et al., 2005). High economic uncertainty occurs in early adulthood, with the high rate of youth unemployment and job instability. It may provide an incentive to delay decisions that imply long term commitments, such as childbearing (Kohler, Billari, Ortega, 2005). Economic conditions are thought to influence the opportunities and constraints for having children that individuals and couples perceive, but are also thought to influence the expected costs and benefits of having children. In particular, the more uncertain one's socioeconomic conditions, the higher one might perceive the cost of having children. On the other hand, individuals facing difficulties on the labor market may decide to center their live on the private sphere (especially women) and then invest in children, particularly if fertility is valued at a societal level and by peers and relatives. In this case, unemployment should increase fertility, or at least accelerate it.

In some countries, such as France, fertility stands at a rather high level despite a high rate of youth unemployment. This paper examines the impact of unemployment and working

conditions (i.e. flexibility of working hours, temporary/permanent jobs) on the timing of parenthood. We will answer the following questions: Does an insecure employment spell affect fertility plans? Is fertility merely delayed or is completed fertility also affected? Finally, we will investigate whether economic uncertainty has similar effects for men and women on the propensity to have children and on the timing of births.

We proceed in three steps, using three indicators of fertility. First, we analyze the completed fertility of women and men. We compare those who had a continuous working career with those whose career was interrupted by unemployment or short-term jobs. Second, we study the timing of childbearing according to the job security path. Lastly, fertility plans are linked to the current employment situation of both partners.

## **Data and methods**

The data set used here comes from the *Family and Employer survey* conducted by INED in 2004-2005. The sample comprises about 9,500 individuals aged from 20 to 49. Two persons per household were interviewed. Data were extracted for all female and male respondents in couples, or who had one child or more.

This survey includes retrospective work histories: respondents were asked for their employment situation in every year between their 18th birthday and the survey date. For each family event reported (couple formation, childbearing), the individual is asked about a precise definition of his/her employment situation (wage-earner/self-employed, public/ private, type of contract). Some questions deal with the fertility plans.

Our sample, based on a quite homogeneous generation (20-49 years old in 2004), is adapted according to the subject studied. To study completed fertility, the sample is restricted to individuals who are at least 40 (even if fertility is still not completed, especially for men). We use all females and males who have already formed a couple to study timing of first birth, and couples who already have one child to study second births. Lastly, we study fertility plans using a sample composed of all couples (at the survey date).

Several methods are also used, including least squares regression on the fertility reached at 40 years old. We also tried to use ordered multinomial probit but results show that a least square regression is sufficient. For the timing between couple formation and the first child and between first and second childbearing, we use survival analysis: Kaplan Meier and Cox models. Lastly for the intention of childbearing, we use a logit model on the choice, and a least square model on the delay advanced in case of childbearing desire.

Control covariates are education, generation, religiosity, age at the first union, number of siblings, nationality, income.

The covariates of interest are the occupational history and more particularly the number and length of unemployment spells and short-term job spells, the employment situation at key moments such as union formation and around the births.

We produced some longitudinal indicators of uncertainty, e.g. ratio of the number of years with unemployment spells lasting more than 6 months to the number of years since the first job. We did the same with the spells of insecure employment (short-term, apprenticeship or temporary), and inactivity in order to compare.

## Results

First results are summarized in table 1:

Table 1 : Summary of main results

Dependant variable	Total fertility rate		Timing of first birth		Child desire	
	Women	Men	Women	Men	Women	Men
<i>Covariates of interest</i>						
Unemployment	-	-	-	ns	ns	+
Insecure job	ns	ns	-	ns	ns	ns
Unemployed at couple formation	ns	ns				
Inactivity at couple formation	+	+				
Partner in secure job					ns	+
Income					ns	+
<i>Control covariates</i>						
Education	-	ns	-	+	+	+
Age cohort			-	-		
Religiosity			+	+	ns	ns
Number of siblings	+	ns	ns	ns	ns	+
Citizenship	+	+	+	+	ns	+
Well-being					+	ns
Number of marriages	+	+				
sample	40 and more		at least once in couple		today in couple	

ns=non significant

### *Unemployment reduces fertility in the long term*

After controlling for the number of siblings, the citizenship and the order of union, completed fertility is negatively correlated to the uncertainty ratio (number of unemployment years on the working period), but not to an insecure trajectory. For women, unemployment is very different from inactivity: women do not take advantage of unemployment to invest in childbearing. However, the security of employment at the beginning of the union does not affect total fertility rate. For men, the results are similar but with a higher intensity, since men are socially “expected” to be the main breadwinner in the couple.

### *Timing of births*

Over the last thirty years, fertility has been delayed because of better planning of childbearing and the longer duration of studies. An insecure path (insecure job or unemployment) delays female timing, but does not affect that of men. The education effect is gender specific. Whereas the more educated women tend to delay the arrival of children, the more educated men are those who accelerate first childbearing.

### *Children now, later or never?*

We observe that men’s plans depend on many economic determinants such as the household income and the employment situation of both partners, whereas women’s desire is more difficult to explain. Men with temporary jobs are less eager to start a family, they may wait for a better employment situation. The self-employed are also more reluctant to have children. However, unemployed men want children (more often than secure workers) but usually “not now”.

## Conclusion

A job history with unemployment may reduce completed fertility by affecting the overall timing of births. Short-term jobs have a weaker effect, except on male fertility plans. The article emphasizes that female and male childbearing desires do not have the same determinants, because of prevailing social norms about the division of labor. Fertility timing and completed fertility are the result of a negotiation in which the employment uncertainty of each partner plays a role.

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