Gender roles within partnerships facing their first parenthood

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Methodology

Focusing on young childless different-sex partnerships, we wonder why so few are currently having a baby in contemporary Spain. We observe those couples up to the moment than either have a new baby born or leave the observational window, within a period of fifteen years framed on the 21st century. So, couples are flowing along either a pleasant economic expansion period (1999-2008) or a disagreeable economic crisis (2009-2015). Data comes from the quarterly panel household Spanish labour force, from their first quarter of 1999 to the second quarter of 2015, gathering 48,025 partnerships observed in 154,213 occasions between one quarter and the following one, registering an event (first partnership) for a 13.6% of them and treating the rest as truncated information. This survey rotates one sixth of the sample every wave: thus, you can follow up each individual with a maximum of one and a half year, as far as they remain in the household. Table 1 describes the panel structure of the data, having the maximum following of five inter-quarters for 1 in 3 partnerships (15,883).

Table 1. Structure of the panel data

```
. xtdescribe

      id:  14451, 14666, ..., 9531989                        n =      48025
observacio:  1, 2, ..., 5                                     T =          5
           Delta(observacio) = 1 unit
           Span(observacio)  = 5 periods
           (id*observacio uniquely identifies each observation)

Distribution of T_i:    min     5%     25%     50%     75%     95%     max
                          1      1       2       3       5       5       5

     Freq.   Percent    Cum.  |  Pattern
  ----------------------------+---------
     15883     33.07   33.07  |  11111
     10530     21.93   55.00  |  1....
      7773     16.19   71.18  |  11...
      7205     15.00   86.19  |  1111.
      6634     13.81  100.00  |  111..
  ----------------------------+---------
     48025    100.00          |  XXXXX
```

This survey contains broad information on an individual level related to the socio-demographic and labour characteristics of the population and is also a unique source for studying the household composition. We have selected women aged 18-45 living with a

male partner and childless, following them until they separated or have their first baby. Those partnerships remaining childless are followed until their last observation and treated as truncated information. The first observed period is from the first to the second quarter of 1999 and the last from the first to the second of 2015 (so we do not have fully information on this last year). Table 2 presents that information from a biographical perspective: among inter-quarterly periods, 96% remain childlessness and in a 4% a new baby was born; if we focus on couple biography, we register than 13.6% became parents for the first time and the rest (86.4%) remain childlessness.

Table 2. First fertility: overall inter-quarterly observations and in individual biography

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. xttab fertility1st

                    Overall              Between            Within
 fertili~t |    Freq.   Percent      Freq.   Percent         Percent
-----------+-----------------------------------------------------------
         0 |   147693     95.77      46010     95.80           96.50
         1 |     6520      4.23       6520     13.58           55.57
-----------+-----------------------------------------------------------
     Total |   154213    100.00      52530    109.38           91.42
                                   (n = 48025)
```

We are using discrete-time event-history techniques on the transition to first parenthood. We are analysing heterosexual couples, so inter-quarterly period are nested in partnerships, focusing on the characteristics of those who are having a baby in comparison with those who remain childless. We are modelling the first-fertility odds according to observational period, women's age and age difference between partners, and both members of the partnership' labour force participation, educational attainment and place of birth.

Results

Age of female member of the partnership can be modelled with three factors: simple, quadratic and triple (graph 1). Highest probability of having a first baby is for those partnership when women is 17 years old, but the age-pattern falls until 24 years, showing a normal distribution from 25 to 38 years, and being close to zero when women is 45 years old. Pyramid in graph 2 shows the structure of the sample in age-person: proportions of partnership with younger women are minimum, but maximum when the female partner is aged around 29. Due to that structure, whist the volume of first children with a mother of 17 years is insignificant, those babies born from a couple where the mother is aged 30-34 are relatively huge (graph 2).

Graph 1. Probability of having a first child by female age
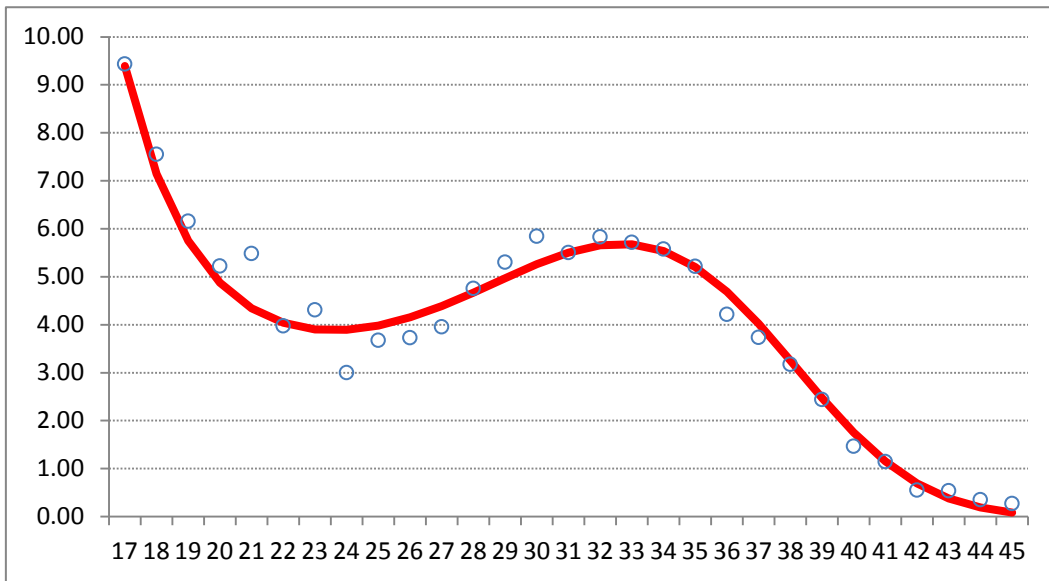
*Note: controlling by year of observation*

Graph 2. Sample age-structure, by person-year (%)
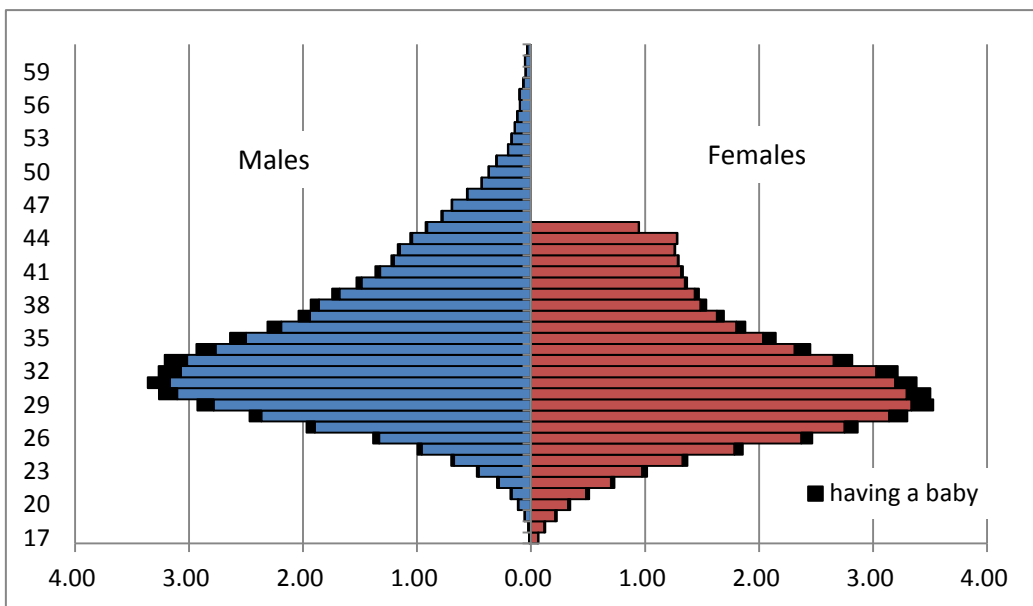
Once women's age is controlled, the probability of having a first baby by year of observation shows three different periods with a progressively lowering fertility: 1999-2005, 2006-2008 and 2009-2013 (graph 3). And it seems that it has been a little increase during 2014. Nevertheless, there is no statistically significant difference within the 1999-2008 period and within the 2009-2015 one, so we have grouped the first decade and the posterior crisis period. The probability of having a first child have fell from 3.4% to 2.9% between 1999-2008 and 2009-2015, although once we controlled by

female labour market participation these periods lose all their explanatory power (as we will see).

Graph 3. Evolution in first-parity fertility
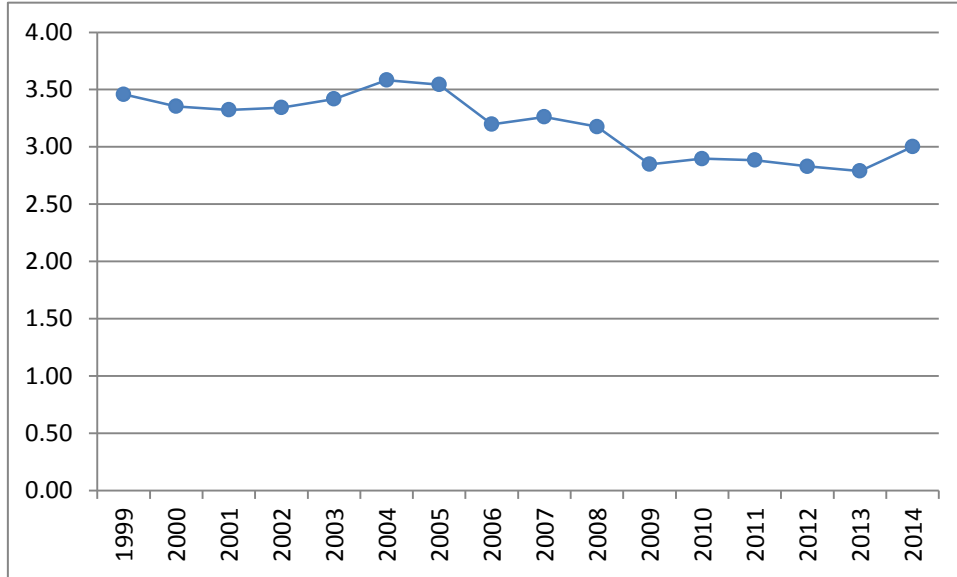
Note: controlling by female age

Age difference between male and female partner is the following variable we include in the model. Although it shows up to be an important factor, it is not for those more usual partnerships, where woman is the same age than man or from one to two years younger (graph 4).
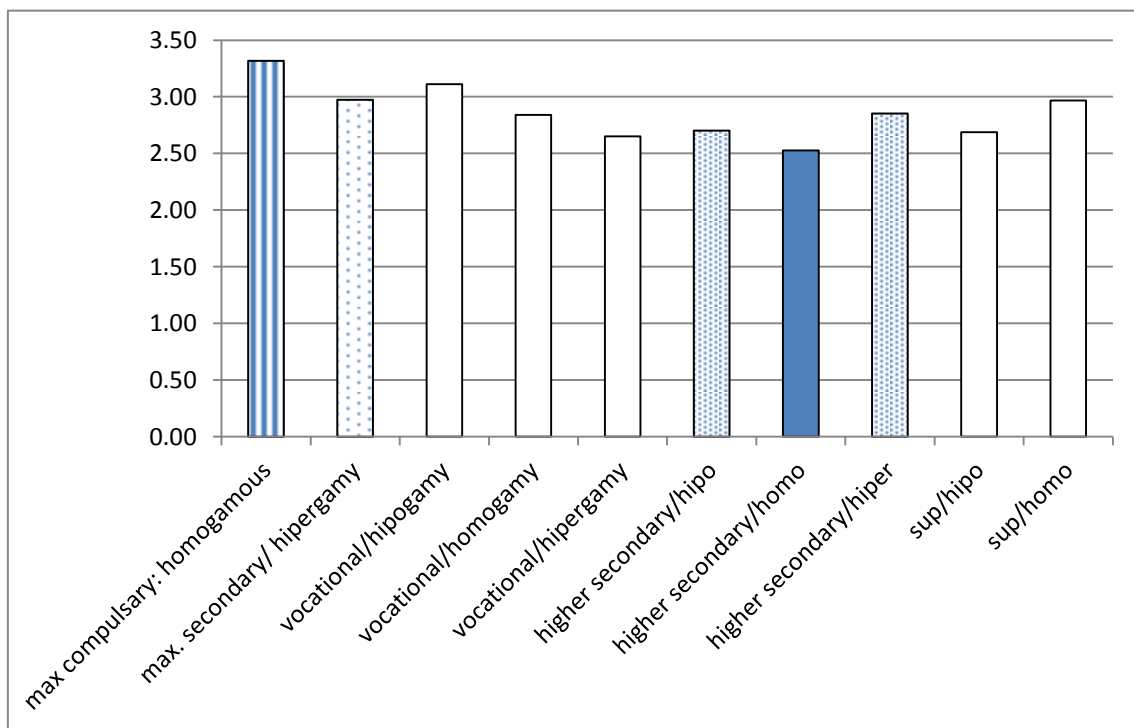
Graph 4. Probability of having a first child by age difference between partners
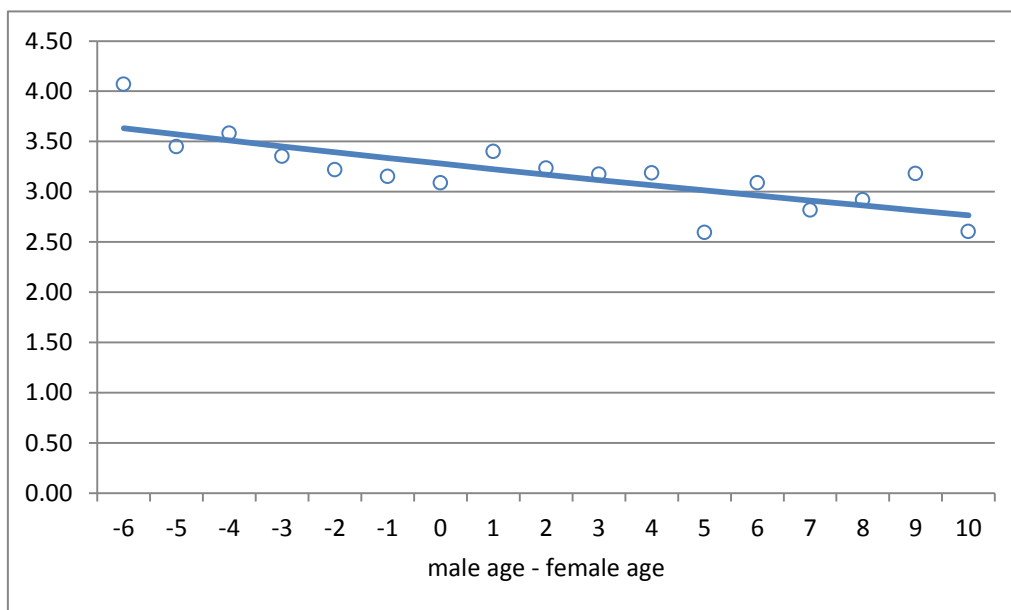
Note: controlling by female age and year of observation

Our analysis of the role of education, labour market activity and immigrant fertility patterns in the transition from childless to first child in Spain indicates that, by one hand, although younger women have increase dramatically their educational attainment and their attachment with the labour market, lower fertility are not found among dual-earners partnerships with the highest education. In fact, there is no difference in first fertility between homogamous partnerships in which both members are holding a university degree and those in which both members have primary education. The only difference is found in partnerships formed by a woman holding a bachelor degree and a man with lower education than her (graph 5).

Graph 5. Probability of having a first baby according to partners' educational attainment (1st women, second men)
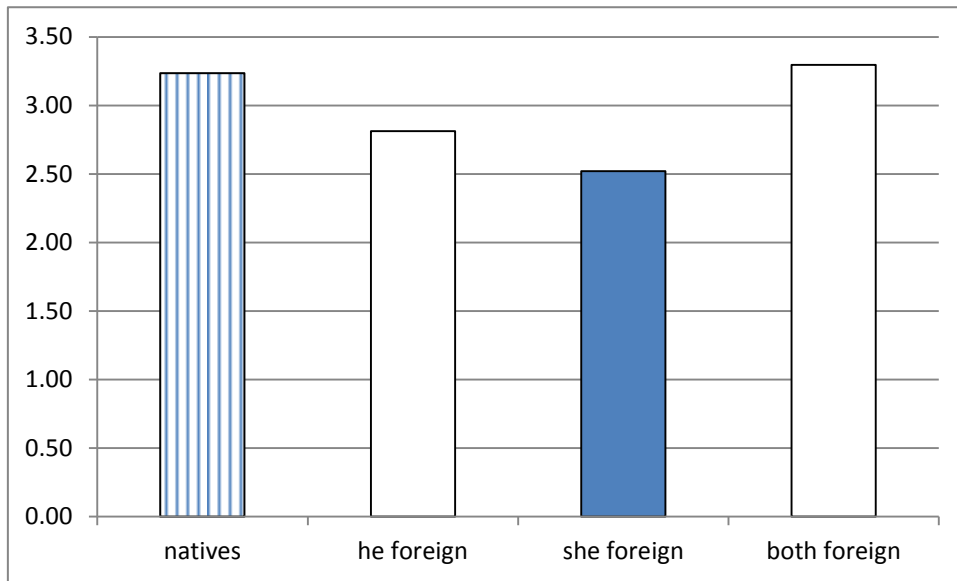

Note: controlling by all other variables

Source: table 3

Moreover, there is no significant difference between native partnerships and those formed by foreign born members (graph 6).
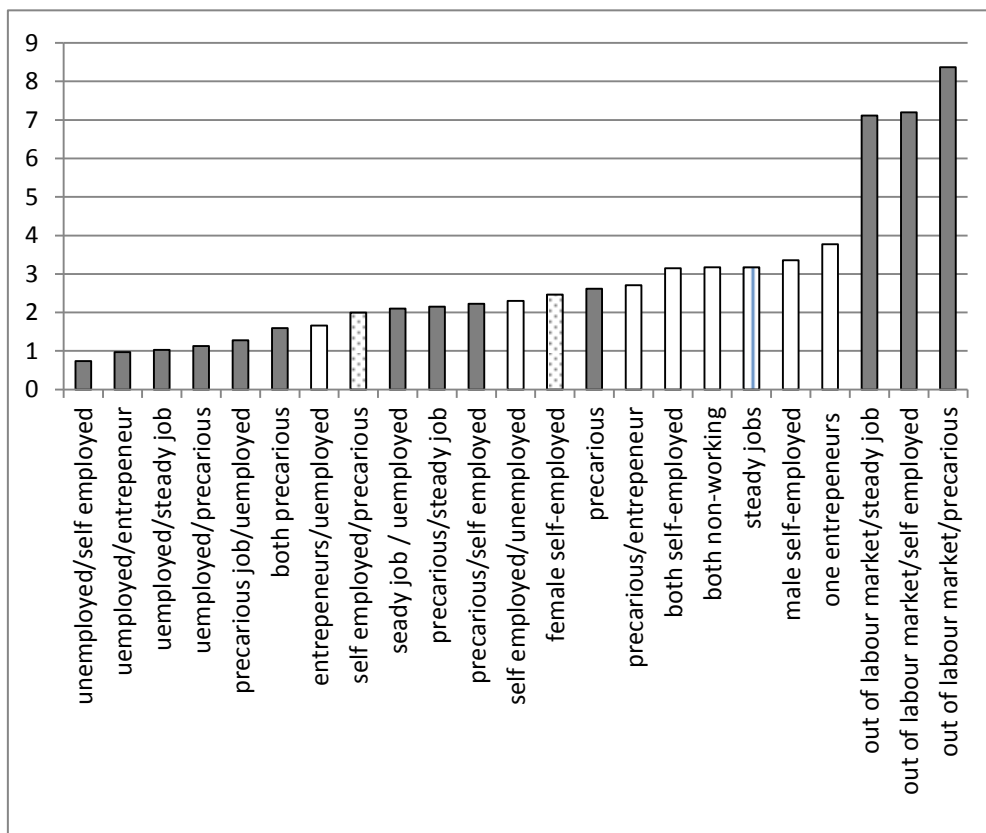
Graph 6. Probability of having a first baby according to partners' place of birth

Graph 7. Probability of having a first baby according to partners' labour force participation

On conclusion, the main explanatory factor in the transition to first parenthood is female labour participation, being female unemployment the fundamental explanation in the low first-fertility rates. On the contrary, male labour participation is not a significant issue in explaining the phenomena (graph 7). In others words, the main reason emerging in the analysis for registering this extremely low first-fertility level is gender discrimination in the labour market, indicated by huge unemployment rates among young women in comparison with men. On contrast, there is no significant difference in first-fertility of native and immigrant partnerships. Moreover, educational attainment has no significance once labour participation is included in the explanatory model.

Table 3. Explanatory model of the probability of having a first child

	Coefficient	Signification	Estimated probability
1999-2008	0.00	ref.	2.42
2009-2015	-0.03	ns.	2.34
Continuous age	-0.346	***	
squared age	0.035	***	
triple age	-0.001	***	
Diference in partners age	-0.012	***	
squared	-0.001	*	
Women/Men labour Participation			
steady jobs	0.00	ref.	3.17
male self-employed	0.06	ns.	3.36
precarious	-0.20	***	2.62
one entrepeneurs	0.18	ns.	3.77
female self-employed	-0.26	**	2.47
both self-employed	-0.01	ns.	3.15
self employed/precarious	-0.47	**	2.00
precarious/steady job	-0.40	***	2.15
precarious/entrepeneur	-0.16	ns.	2.71
precarious/self employed	-0.37	***	2.23
both precarious	-0.70	***	1.60
seady job / uemployed	-0.42	***	2.10
entrepeneurs/uemployed	-0.63	ns.	1.66
self employed/unemployed	-0.32	ns.	2.30
precarious job/uemployed	-0.93	***	1.27
uemployed/steady job	-1.15	***	1.03
uemployed/entrepeneur	-1.21	***	0.97
unemployed/self employed	-1.48	***	0.74
uemployed/precarious	-1.05	***	1.13
bothnon working	0.01	ns.	3.17
out of labour market/steady job	0.84	***	7.11
out of labour market/self employed	0.85	***	7.20
out of labour market/precarious	1.02	***	8.37
Women's educational attainment			
max compulsary: homogamous	0.00	ref.	2.46
max compulsary: hipergamous	-0.10	*	2.24
vocational: hipo	0.02	ns.	2.53
vocational: homo	-0.07	ns.	2.31
vocational: hiper	-0.12	ns.	2.19
high secondary: hipo	-0.16	**	2.10
high secondary: homo	-0.21	***	2.02
high secondary: hiper	-0.18	**	2.05
university: hipo	-0.07	ns.	2.31
university: homo	0.02	ns.	2.53
missing	0.42	ns.	3.78
Place of birth			
Natives	0.00	ref.	2.54
he foreign	-0.06	ns.	2.36
she foreign	-0.24	***	1.95
both foreign	0.08	ns.	2.72
Constant	-1.90	***	

Theoretical framework

After several decades of low levels, fertility as measured by the period fertility rate (TFR) rose in the majority of developed countries since the late 1990s. There are several explanations for this fertility reversal. Against the Becker theoretical postulates (1981), which predict a decline in fertility following the transformation of women's economic status, a more contemporary approach emphasized the importance of female employment. Indeed, many relevant researchers showed that the correlation between levels of female employment and fertility has been reversed and that, as a consequence, the fertility recovery is more likely to occur in those countries where female employment becomes the norm (see Ahn and Mira, 2002; Esping-Andersen, 2013). In the same vein, McDonald (2000) stressed the role of gender equity in the explanation of fertility levels. This author states that only if social institutions (welfare state and labour market) and couples (more gender symmetric relations) adapt themselves to women's new role and life course preferences, a more equitable family model would emerge and, in turn, higher fertility levels. Esping-Andersen (2009) argues that fertility recovery is only possible in a new gender-equal system in which housework, childrearing responsibilities and labour market participation are more gender-equally distributed within households.

In the Spanish case, the impressive and accelerated evolution form a male breadwinner family model to a dual-earner family was interpreted as the main explanatory factor of a total fertility rate far below replacement: from 1984 onwards it has never reached over 1.5 children per women. However, the correlation between the new economic role of women and fewer children has been reversed since the onset of the new century with a recovery of fertility levels. However, both gender equality and the incipient fertility reversal were interrupted by the post-2008 economic crisis due to the increase labour instability and of unemployment rates among both, men and women, which clearly affects family formation (Castro-Martin and Martín-García, 2013). Effectively, many studies have shown that job insecurity and unemployment levels of one or both members of a couple have a strong effect in reducing birth rates (Adsera, 2011; De la Rica and Iza, 2005).In the same vein, Gónzalez and Jurado-Guerrero (2006), identified not only the effect of poorly developed conciliatory policies but also labour market structures, unstable employment and high unemployment rate of young adults as one of the key obstacles to fulfilling fertility preferences in Spain.

Since the rise in fertility observed during recent economic expansion has coincided with the increase of immigrant population in Spain, the growing number of births has been attributed to the contribution of the higher fertility levels of immigrant women (Roig and Castro-Martín, 2007), in special due to their youthful age pyramid. However, several studies have shown that although immigration has contributed significantly to slowing down the rise in the mean age at motherhood (Castro-Martín and Martín-García, 2013), the aggregate impact of immigrants on overall Spanish fertility levels has been rather modest (Roig and Castro-Martín, 2007). Moreover, research for Spain concluded that the impact of immigrant fertility largely depends on the socio-demographic composition of immigration, regarding to age, region of origin, education and marital status.

Mostly, fertility research focused its explanations in the women's characteristics. Concretely, fertility decisions have been explained by the influence of women's earnings, education and labour supply (Stier et al., 2001). Moreover, other researches stressed the role of women's job insecurity, unemployment risk and difficulties of reconciling work and motherhood (Adsera, 2004; Kohler et. al, 2002; Ahn and Mira, 2002) to explain low-fertility scenarios. However it is for us necessary to introduce both partners' characteristics, in particular the distribution within couples of the labour market participation in order to investigate gender labour market equality within couples as a potential precondition for the transition to the first fertility of women of different national origin in Spain.

Conclusions

Therefore, the main cause for the far below replacement fertility over the last three decades in Spain is the huge female unemployment rates, particularly among those young women living in a childless partnership. The positive relationship between employment and first-fertility do not correspond with predictions of economic theory, which considers motherhood and labour-force participation as competing activities. Endogamy and homogeneity in partners make more likely to have a first child but they are not helping to increase fertility.

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