Impact of birth timing on women's careers: changes over generations?

Benoit Rapoport[1], Carole Bonnet (Ined)[2], Ariane Pailhé (Ined)[3], Anne Solaz (Ined)[4]

Extended abstract
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State of the art

It is now well-known in the literature that having children induces a wage penalty for women (Waldfogel, 1997, 1998). An emerging question is how the timing of entry into motherhood and not only the number of children affects future labor market outcomes and whether it influences the magnitude of the motherhood penalty. Postponement of the first birth is indeed one of the main changes in the last decades (Ní Bhrolcháin, Beaujouan, 2012). Several reasons for this postponement have been advanced (Mills et al., 2011): extended education and increasing difficulties to enter the labor market, a better fertility control, and changes of age norms about parenthood. The "right time" in the career might also be an argument to advance or postpone childbearing. In a context of increasing female labor force participation and also higher insecurity of jobs, the fertility timing could constitute a variable of adjustment. Could the postponement be a volunteer choice from women to minimize the penalty incurred on the labor market when having children? A strategy could be to enter the labor force to and to be sure of a stable and well-paid job before having children (Caucutt et al., 2002). The literature on this topic is still scarce and gives some evidence that postponement of births induces a significant increase in women's wages (Amuedo-Dorantes et Kimmel, 2005, Drolet, 2002, Taniguchi, 1999; Miller, 2011).

Within the European context, France has a specific position. Birth postponement has occurred as in other countries but the fertility level is higher, especially when comparing high-educated women. Moreover, contrary to other European countries, there is no direct negative impact of children per se on mother's wages. However, having children has a negative indirect impact through career interruptions and statistical discrimination against mothers (Meurs et al. 2011). Postponing birth may be a way to limit this penalty. But the impact of birth timing has not been studied so far.

[1] Paris 1 University and Ined, National Institute of Demographic Studies, Benoit.Rapoport@univ-paris1.fr
[2] Ined, National Institute of Demographic Studies, carole.bonnet@ined.fr
[3] Ined, National Institute of Demographic Studies, pailhe@ined.fr
[4] Ined, National Institute of Demographic Studies, solaz@ined.fr

We aim at answering the questions raised by birth timing. Is the effect more important when having children at younger ages (and then interrupting their careers at the beginning)? Is it more profitable in terms of wage penalty to have children in a short time interval? In a more general way, does postponement of age at first birth play a role in the reduction of wage inequalities between men and women?

Beyond giving evidence for France, this work contributes to the literature in two ways. First, we do not limit our work to women on whom the major part of the literature on fertility focuses. We extend the investigation to men. Second, we adopt a generational perspective, trying to see if the effect of postponing changes over generations.

Data and methodology

We use Social Security records drawn from the Echantillon Interrégimes des Cotisants (EIC) produced by the French Ministry of Labour and Social Affairs. These administrative dataset recorded every year the elements (wages in particular) used to compute the future old-age benefits entitlements of people. These data give reliable information on wages profiles of individuals on their entire career, but give few socio-demographic elements, since they are not necessary to compute old-age benefits. So, these data are matched with another database, the Permanent Demographic Sample (EDP) in order to get children (and their date of birth) and education level to put them in regard of careers.

These data cover a time period starting from 1968, the first year for which data on births are available, up to 2005. We have access to a representative sample of seven cohorts of French people, who were affiliated at some point to the social security system. The oldest cohort was born in 1950 and the youngest cohort in 1974. For each cohort, the sample size is 3,500 to 4,000 individuals, a sample size of 25,000 individuals. There is enough variability in the age at birth within each cohort to compute models.

We use fixed-effects panel data model. Since fertility may be endogenous, it is important to get an exclusion variable able to explain the timing of the first birth and not the labour market outcomes. The variation of the pill diffusion at the regional level is a good candidate for such an instrument since it enables women to get control over their fertility timing from the 1970's.

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