

# Socio-economic differentials in labour market attachment and its impact on childbearing behaviour: Analyzing the transition to first, second and third births among Belgian women and their partners

David De Wachter

Department of Social Research, Interface Demography, Vrije Universiteit Brussel

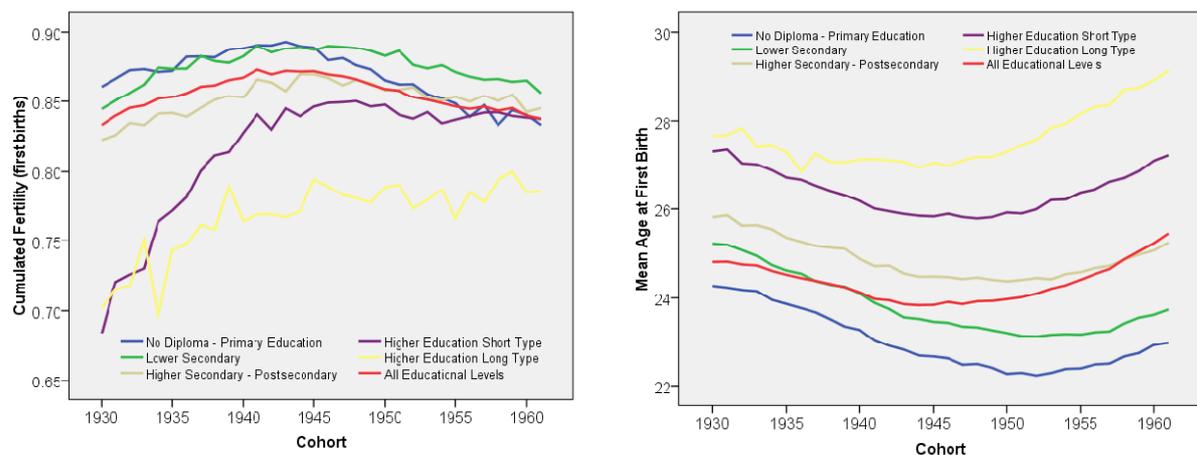
Karel Neels

Sociology Department, Antwerp University

## Persistent socio-economic differentials in the transition to first, second and third births

Retrospective research for Belgium, based on the 1991 and 2001 census, has focused extensively on socio-economic differentials in cohort profiles of order-specific fertility (Neels, 2006; Gadeyne, Neels and De Wachter, forthcoming). It was found that women from the 1930 birth cohorts already showed marked fertility differentials in terms of educational attainment. Higher educated women (albeit a select group at that time) realized significantly fewer first births than lower educated women (Figure 1) with not less than 30% of the higher educated women remaining ultimately childless. The vast majority of these women translated their increased investment in human capital into active labour market participation. This experience has surely contributed to the fact that higher educated women postponed their childbearing to a considerable extent. The mean age at first birth among higher educated women reached almost 28 years even among these older birth cohorts. Lower educated women on the other hand generally experienced few difficulties in realizing a first birth. In comparison with their higher educated age-mates they became mothers at relatively young ages.

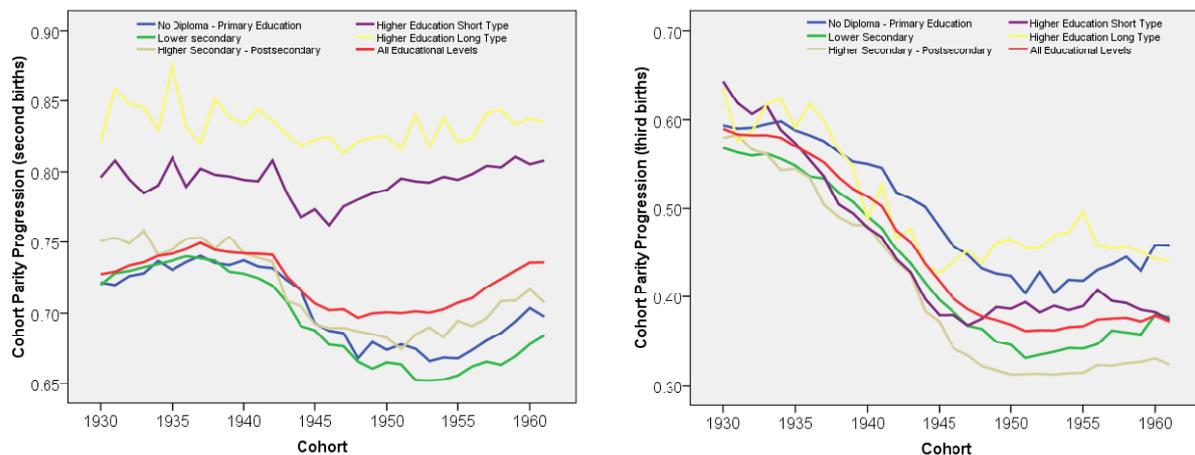
Figure 1 Cumulated fertility and mean age at first birth according to highest level of education, Belgian women, 1930-1961 birth cohorts



Source: Gadeyne, Neels and De Wachter (forthcoming)

The results further indicate, however, that the difference between higher and lower educated women runs in the opposite direction with respect to higher order births. Figure 2 depicts the parity progression ratios for second and third births according to highest level of education. Higher educated women who did make the transition into parenthood turn out to have a second and even a third birth more frequently than lower educated women. Parity progression ratios for lower educated women are considerably lower, despite the fact they had their first child at generally younger ages. Only with respect to fourth births, lower educated women still realized higher parity progression ratios (results not shown). The fact that higher educated women frequently make progressions to higher order births did not compensate at the time for the large proportion of higher educated women remaining childless. As a result, higher educated women in the older birth cohorts had lower completed fertility by the end of their reproductive life-span than their lower educated age-mates.

Figure 2 Parity progression ratios for second and third births according to highest level of education, Belgian women, 1930-1961 birth cohorts



Source: Gadeyne, Neels and De Wachter (forthcoming)

Over subsequent birth cohorts, the transition to parenthood has become increasingly frequent, but even for the most recent cohorts observed, we still notice a sizable gap between university and other educated women in the progression to a first birth. For the most recent cohort born in 1961, the proportion of university educated women who ultimately remain childless amounts to about 20%. With respect to second births, parity progression ratios remained fairly constant over time for higher educated women, whereas they dropped considerably for lower educated women. For third births, parity progression ratios dropped for all educational groups. Still, university educated women more frequently make the transition to a third birth. Progression to third births is also frequent for women with at most primary education, but the relative weight of this group has become increasingly smaller over subsequent birth cohorts.

### **Analyzing socio-economic differentials in labour market attachment and its impact on childbearing behaviour**

In a recent paper Neels and De Wachter (forthcoming) explored socio-economic differentials in labour market attachment and its impact on first-time motherhood among Belgian women. The analyses reveal that educational background has a clear effect on occupational status. Higher educated women typically enjoy more stable career prospects and are less confronted with labour market insecurities. After graduating, higher educated women experience relatively few difficulties in finding their way to the labour market and the vast majority is already engaged in either full-time or part-time employment. However, among lower educated women, the share of employed individuals is considerably lower. Lower educated women also find themselves more often in insecure or uncertain labour market positions. About 17 per cent of the lower educated women, aged 25-29 years, are currently unemployed, whereas the proportion of unemployed women among the tertiary educated is less than 5 per cent. The same picture comes forward when comparing the labour market attachment at higher ages with lower educated women finding themselves in more insecure labour market positions compared to higher educated women.

When estimating the effect of labour market attachment on the hazard of becoming a first-time mother, Neels and De Wachter (forthcoming) found out that for younger age-groups first birth hazards are highest among women actively engaged on the labour market, regardless of the educational level achieved. Furthermore, there were no significant differences between full-time and part-time working women, suggesting that women prefer to gain at least some foothold on the labour market before having a first child. Interestingly however, the impact of being unemployed seemed to differ among women from different socio-economic backgrounds. Although all educational groups experienced a negative effect of unemployment on the hazard of becoming a first-time mother, the impact of being unemployed seemed to affect higher educated women more severely. Also at higher ages, the negative impact of unemployment seemed to be more pronounced among higher educated women. At the same time, however, higher educated women experience few difficulties in finding stable employment.

### **Extending the model: the transition to higher order births and the impact of male labour market attachment**

In this paper the relationship between labour market attachment and childbearing behaviour will be studied in further detail. First, we expand the scope of the analysis by estimating the impact of labour market attachment on first, second and third births. The reconstruction of cohort profiles of order-specific fertility in Belgium learned that higher educated women manage to combine later ages at childbearing with increasing transition to motherhood. Nevertheless, at the end of the reproductive life-span, higher educated women still remain childless more often compared to lower educated women. At the same time, once higher educated women make the transition to motherhood, they frequently progress to a second and even third birth. Lower educated women on the other hand combine a young fertility schedule with a declining transition to motherhood. Despite their earlier transition to motherhood, they record lower parity progression ratios for second and third births compared to higher educated women. The results thus seem to suggest that the bottleneck in the transition to motherhood situates itself along first births for higher educated women, and along second and third births for lower educated women. The question we try to answer is to

what extent differential labour market attachment explains differential behaviour in order-specific fertility. For instance, Becker (1981) argued that higher educated women face greater opportunity costs associated with childbearing. On the other hand, he also notes that higher educated women might be in a better position to deal with the direct costs associated with childbearing. Possibly the income effect associated with higher wages may well outweigh substitution effects (Becker, 1991). Especially with respect to higher order births, the direct income effect may play a dominant role in decisions about fertility, i.e. higher educated women who have more prospects to establish themselves on the labour market might be better off to deal with the costs of another child. Furthermore, higher educated women might be employed in sectors that offer more opportunities to reconcile labour force participation and childbearing. On the other hand, Friedman, Hechter and Kanazawa (1994) argued that lower educated women, in a tendency to reduce uncertainty, might choose the alternative career of childbearing. While this statement may partly explain why lower educated women are less affected by unemployment in the transition to first births, the effect might well be very different with respect to decisions concerning higher order births, as the prospect of another child might as well increase rather than reduce insecurities.

Second, we expand the scope of the analysis by controlling for the labour market attachment of the male partner. In the literature the effect of male characteristics on childbearing behaviour is not well explored, mainly due to a lack of available data. To the extent that men are still perceived as the chief providers of the family, and that income effects dominate substitution effects (Liefbroer and Corijn, 1999), we can expect male labour force participation to exert a clear positive effect on childbearing. Consequently, male unemployment is expected to exert a clear negative effect (Kravdal, 2002). Possibly the effect of women's labour market attachment disappears when we control for their partner's labour force participation. So finally we expand the scope of the analysis by including partner's characteristics into the model in order to see how male labour market attachment affects childbearing behaviour and what the net effect is of female labour market attachment on childbearing decisions once their partner's characteristics are taken into account.

### **Data and Methods**

Using a prospective research design, the paper explores (i) the correlation between educational attainment and labour market attachment recorded in the 1991 census, and (ii) estimates the effect of occupational status on first, second and third birth hazards in the subsequent 6-year period. The discrete-time event history model uses duration since entry into the risk set on January 1<sup>st</sup> 1992. The analyses are stratified according to age-group and highest level of education. The stratification procedure is motivated by the fact that the effect of labour market attachment (a) differs both by age and educational attainment, and (b) further interacts with the baseline hazard function. A possible limitation of the analysis is that events occurring between 1992 and 1997 are related to time-constant covariates measured in 1991. To overcome this issue to some extent we estimate separate models for the periods 1992-1994 and 1995-1997. Because individuals are likely to change their labour market position over the life-course, estimating separate models for both time-periods, gives an idea about the stability of covariate effects. In the analyses we further control for household composition and the quadratic effects of age in 1991 and duration since graduation in 1991.

## References

- Becker, G. (1981). "A Treatise on the Family." London, Harvard University Press.
- Becker, G. (1991). "A Treatise on the Family." London, Harvard University Press.
- Friedman, D., M. Hechter, and S. Kanazawa (1994). "A theory of the value of children." *Demography*, 31 (3): 375-401.
- Gadeyne, S., K. Neels, and D. De Wachter (forthcoming). "Nuptialiteit en Vruchtbaarheid. Sociaal-Economische Enquête 2001." Monografieën. Brussel, Federaal Wetenschapsbeleid.
- Kravdal, Ø. (2002). "The impact of individual and aggregate unemployment on fertility in Norway." *Demographic Research*, 6 (10), 263-294.
- Liefbroer, A.C., M. Corijn (1999). "Who, what, where and when? Specifying the impact of educational attainment and labour force participation on family formation." *European Journal of Population*, 15: 45-75.
- Neels, K. (2006). "Reproductive strategies in Belgian fertility: 1930-1990." Brussels and The Hague, NIDI-CBGS Publications.
- Neels, K., D. De Wachter (forthcoming). "Persistent socio-economic differentials in Belgian fertility: can they explain secular trends in tempo and quantum