

Education and fertility differentials in Australia

Like many countries, data from Australia demonstrate differentials in fertility. However, much of this evidence is piecemeal, demonstrating cross-sectional differences by particular backgrounds without presenting a complete picture. For example, national statistics show us that there are differences in overall fertility levels by income, education, religion, country of birth, indigenous status, and residential area (ABS 2008). It has been found that education is associated with widening disparities in who cohabits and marries (Heard 2011) and we would expect that a similar pattern would apply for fertility. In this paper we investigate whether timing of births, parity progression and spacing vary by education.

In other Western-industrialized countries a considerable amount of research has been conducted on the disparities in fertility by education. Further, in some countries this disparity is also associated with the relationship context of births. In the U.S. it has been found that these trends indicate a widening of these disparities. For example, leading family sociologist Andrew Cherlin, notes that there has been '... a troubling divergence in the family patterns of Americans according to education and income' (2010, pp.403-404). This conclusion follows a previous review of SES disparities in family formation (McLanahan 2004) that drew contrasts between two broad groups: a disadvantaged group characterized by earlier and often non-marital family formation and an advantaged group characterized by later family formation with childbearing occurring within marriage. In Australia, there is also evidence of differences in the education gradient of fertility being associated with the relationship context at first birth (Hewitt et al. 2010).

Many studies have shown that education has an effect of delaying first birth, and is associated with the time taken to invest in education and establishing a career (Kohler et al. 2006). While first births are delayed at higher levels of education, it is on the lower progression to higher parities which researchers tend to focus. Some studies have found a weaker education gradient for second births, often (although not always) contributed by shorter birth spacing for higher-education women (e.g. Köppen 2006, Kreyenfeld 2002, Lappegård and Rønsen 2005, Neels 2006, Oláh 2003). Similar results have been found for progression to third births.

In this paper we focus on the effect of education on fertility behaviour, using HILDA (Household, Income and Labour Dynamics in Australia). Funded by the Australian Government, HILDA is a longitudinal panel study of Australian adults aged 15+. For the purposes of this paper, HILDA contains annual retrospective and prospective data on individual pathways through life. The survey collects detailed information on education, employment, socio-demographic characteristics, as well as relationship status and timing of all births.

Following the lead of Kravdall (2001) and others since, we use event-history using joint modelling of having a first, second, and third birth which takes into account selection effects. Previous to the work of Kravdall, the effect of education has shown positive results at higher parities. However, as Kravdall found, this was an artefact of the separate modelling of parity. We also model spacing by education to examine the speed of progression to later parities.

Preliminary results show that first birth is delayed for higher-education women, consistent with previous studies. Australian women who have completed university education are also more likely to remain childless, although this effect has been declining in younger cohorts. For second births, there is little difference in progression by education, although spacing is shorter for the higher educated. For progression to third birth, those with higher education are less likely to have a third birth, although the magnitude, while statistically significant, is not large. This pattern of parity progression explains Australia's comparatively high 'low' fertility rate.