

## Chapter 11

# **ASSORTATIVE MATING BY EDUCATION AND POSTPONEMENT OF COUPLE FORMATION AND FIRST BIRTH IN BRITAIN AND SWEDEN**

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### 1. INTRODUCTION

The purpose of this chapter is to analyze whether the effect of longer education on timing of maternity works primarily through the timing of couple formation or through postponement of maternity once the couple is formed. We consider the effects of education of each spouse together and separately on postponement of couple formation and the time elapsed from couple formation to timing of first birth.

In Western Europe, the period spent in education has increased over time, and fertility is very low. A number of studies, including Siv Gustafsson, Cecile Wetzels, Jan Dirk Vlasblom and Shirley Dex (1996) and Eiko Kenjoh (2004), show that relative to mothers in Britain, Germany and the Netherlands, Swedish mothers are much more likely to have entered employment within 24 to 60 months after first birth. This difference may be explained by the Swedish policies of paid parental leaves, subsidized childcare, and separate taxation of earnings, which have been effective in Sweden since the early 1970s. These policies are intrinsically pronatalist. One purpose of this chapter is to analyze whether in Britain, where family policies are much less generous and reforms in this area have been introduced only since the 1990s, duration to first birth is longer relative to Sweden.

Our theoretical conception is that individuals have a preferred age for couple formation and timing of birth that fits their human capital investment plans. They also have a fair idea of desirable traits for the marriage candidate when searching in the marriage market. The timing of union formation depends not only on the successful completion of human capital investment but also on the successful search for the right candidate. In our empirical work, we adopt a two-stage method of estimation. We first determine who marries whom by a multinomial logit model and then use predicted probabilities of the spouse's education level in hazard models to analyze the duration from age 13 to union formation and the duration from union to first birth.

This chapter is organized as follows: section 2 discusses the theoretical framework, section 3 gives a descriptive country comparison, section 4 motivates our empirical strategy, section 5 presents our estimates of the mating function, section 6 presents our results on the durations to couple formation and first birth, and section 7 concludes.

## 2. THEORETICAL CONSIDERATIONS AND EARLIER WORK

There are two basic questions addressed in this chapter: “Who marries whom?” and “What causes postponement of couple formation and first birth?” Gary Becker (1973, 1981) suggested that if an attribute complements a similar attribute in a partner, this leads to positive assortative mating: ‘likes’ marry ‘likes’. Spouse’s education is most likely complementary, so that a highly educated person profits from marrying someone with a similar education. Evidence of positive assortative mating by education has been found for the United States (Robert Mare, 1991) as well as for many European countries (Hans-Peter Blossfeld and Andreas Timm, 2003). However, education can have the opposite effect: if sex ratios of highly educated people diverge from unity a less educated woman may marry a man with a higher education than her own because he can’t find a highly educated available candidate at the optimal time of couple formation, or vice-versa. Search on the marriage market may also take longer.

In Blossfeld and Timm (2003), which has inspired our thinking on the mating function, the focus is on explaining ‘upward marriage’ as opposed to ‘homogamous marriage’ and ‘downward marriage’ with regard to educational attainment levels of men and women. The same structure of analysis is used in Blossfeld and Timm (2003) for all 14 countries included in their analyses.<sup>1</sup> For example, in Germany older cohorts of women married upwards because the educational sex ratios of these cohorts were favorable for upward marriage.

In general, results show that successful search in the marriage market depends on the availability of marriage candidates or sex ratios (see Shoshana Grossbard-Shechtman 1984, 2003; David Lam 1988; Theodore Bergstrom and David Lam 1989; Bergstrom 1997; Hiromi Ono 2002). Furthermore, John Ermisch (2003) presents a theory of search in the marriage market, where the probability of matching with someone of lesser quality, for example lower education, depends on the offer arrival rate, the proportion of others with higher education in the marriage market, the probability of divorce, the personal discount rate, and the expected lifetime discounted values of marrying a highly educated person versus staying single or marrying a less educated person.

Theories of search in the marriage market and assortative mating take optimal age at couple formation as exogenous. For example, Bergstrom and Lam (1989) and Bergstrom (1997) assume that men prefer to marry a woman three years younger and they exploit the large year to year variation in Swedish fertility rates for empirical estimation of their model.<sup>2</sup> However, empirical results show that women postpone motherhood until after finishing education, e.g. for Germany, Hans-Peter Blossfeld and Johannes Huinink (1991) show that the probability of marrying or