The spread of non-marital childbearing and its link to educational expansion: the case of Finland

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Motivation & Background

This study examines how the educational degree of women and the educational composition of couples who had a non-marital first childbirth has changed across the Finnish childbirth cohorts 1970–2009. The majority of births outside marriage in the Western world are to partnered women who reside with the child's father in cohabitation (Sobotka & Toulemon, 2008). The union context has consequences for the subsequent family outcome: the child's risk of experiencing parental separation has been shown to be much higher if the parents are cohabiting rather than married. Non-marital childbearing and in particular non-union childbearing is especially concentrated among lowest educated women (for Finland, see Jalovaara and Fasang, 2015).

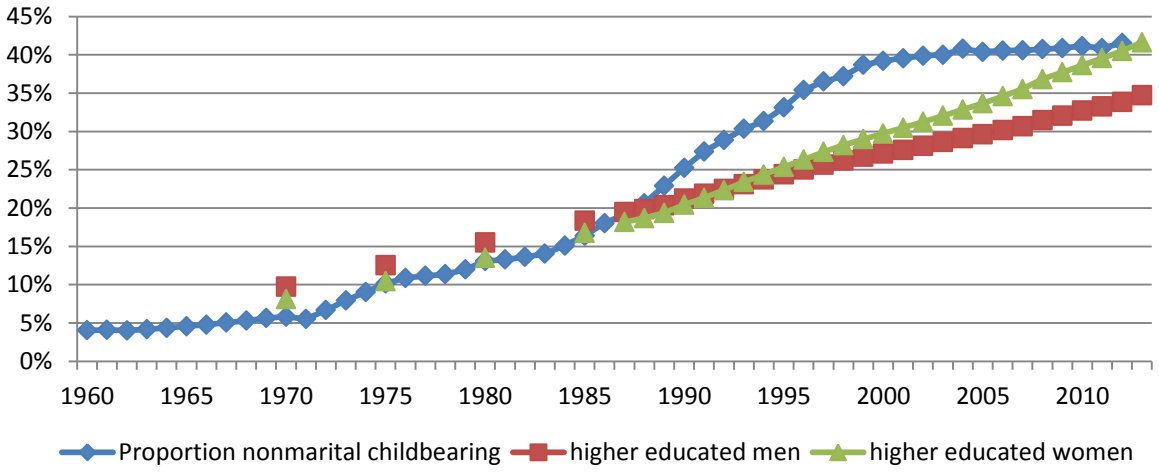

Figure 1: Percentage non-marital births of all births, and percentages highly (i.e. tertiary) educated of overall population aged 15+ by sex. (Eurostat, Statistics Finland).
Note: Highly educated is defined as having tertiary education.

The increase in non-marital childbearing is one of the most remarkable changes in family life that occurred in Finland like in most Western countries during the last decades. Finland experienced from the early 1970s to the 1990s a dramatic increase the proportions of children born to non-married women (see Figure 1). From the late 1980s to the late 1990s, the share of non-marital births nearly doubled from 21 percent (1988) to 39 percent (1999). Since the start of the new millennium, the share has remained stable and amounted to 42 percent in 2012. This trend has motivated to the following research questions: *Which were the factors that had driven the strong increase in non-marital childbearing in 1990s Finland? Why has the proportion in non-marital childbearing been stable thereafter?* There are no studies so far on the determinants of non-marital childbearing in Finland. A review of the policy context revealed that no relevant policy reform was implemented in the 1990s that could explain the sharp increase in non-marital childbearing.

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One important factor that potentially has influenced the change in fertility behavior is the educational expansion. Research commonly finds that individuals with different educational backgrounds differ in their likelihood to form a non-marital family. Educational attainment can be considered a measure of a person's social and cultural resources, and as a structural determinant of labor market opportunities and therefore also of material resources (Becker 1981; Perelli-Harris et al. 2010). Higher educational attainment among women can lead to more economic independence in the partnership and thus decrease the gains of marriage (Becker 1981). Education is also related to values, norms and lifestyles. Highly educated individuals are argued to hold more liberal attitudes which makes them more open towards alternative ideas of living. Recent empirical literature however most often finds a negative link between education and non-marital fertility for women. It is argued that lack of socio-economic resources leads less educated women to have children in cohabitation rather than in marriage (Perelli-Harris & Gerber 2011; Perelli-Harris et al. 2010). Partnerships involving less educated women (or men) may have higher barriers to marry, if they cannot afford an expensive wedding ceremony they might want and they do not fulfill the prerequisite of being economically independent (Kravdal 1999).

Whereas this line of research seems to support the argument of a negative link between education and non-marital childbearing, it could also be that the link between education and non-marital fertility has changed with the diffusion of non-marital families. According to literature on the diffusion of innovations, new behaviors start to spread among a small group of innovators, who differ from the rest of members of the society (Feijter 1991; Liefbroer and Dourleijn 2006). As an innovation spreads, it is adopted by larger segments of the population who do not share these specific characteristics. This decreases the social costs of adopting this behavior for the remaining population. In consequence, differences in characteristics between adopters and nonadopters of this innovation become smaller – or even reverse. A potential mechanism is that new behaviors spread by innovators can build the ground for social policies that incorporate them into their agenda. In this way policies can promote a further spread of this behavior and/or an adaption of this behavior by individuals that deviate in their characteristics from the initiators. Highly educated people are argued to possess more progressive attitudes and to initiate new cultural developments, among them also new demographic behaviors such as cohabitation and non-marital childbearing (Surkyn & Lesthaeghe 2004). The diffusion of more liberal family behaviors that occurred in many countries in the last decades has been linked to an ideational change in values and attitudes towards the family. This value change has been catalyzed by the educational expansion (Van de Kaa 1987; Surkyn & Lesthaeghe 2004). The strategy of non-marital childbearing may first mainly attract women who have the (attitudinal and economic) resources to deal with its consequences, but in the following, education may lose its predictive power on non-marital fertility when chosen by people who constitute a cross section of the society. In the end, the effect of education on fertility can reverse, because the costs of non-marital childbearing may appear to be low low and thus affordable for the less educated in contrast to a wedding ceremony. A similar argument has been made for the link between female education and divorce (Goode 1962).

In Finland, already since the early 1970s an increase in the proportion of children born to women who were not married could be observed (see Figure 1). The increase in non-marital fertility developed first quite parallel to the expansion of higher education. From the late 1980s on, however, the increase in non-marital childbearing became stronger and more decoupled from the increase in higher education. This suggests that the link between education and non-marital fertility has changed over time (*hypothesis*).

Data and Methods

We use Finnish register data from different register sources. Our sample covers 11 % sample of persons born 1940 and 1995 who had been recoded in the population of Finland between 1970 and 2009. The initial sample amounts to N=472,550. For these persons, we have information on their background characteristics (residence, education, occupation, earnings), on all children, on all unions (cohabiting and married), and on partner's background characteristics for each union. From 1988 onwards the unions include cohabitations, and before that marriages only.

The data on education are based on Statistics Finland's Register of Completed Education and Degrees. The data are very detailed and include information on five educational degrees per person, level, field and the date of degree completion). In the present analyses, we use the highest education measured in the data (in a later step we will also use time-varying information on education). We distinguish the following levels of education: Individuals with no registered post-comprehensive, non-compulsory education are interpreted as having a 'basic'-level qualification, which means at most nine years of education; 'secondary'/'vocational education' (=10 years in education, 'upper secondary'/'gymnasium' (=11 to 12 years in education, including matriculation examination and vocational qualifications obtained in one to three years); 'lowest tertiary' (education of three to four years after secondary school; example of qualifications: diploma as technician engineer, in business and administration, or in nursing), 'lower degree-level tertiary' (=e.g. polytechnic degrees and Bachelor's degrees from universities), 'higher delree-level tertiary' (=education of five to six years after secondary school, e.g. Master's degrees from universities, as well as doctorates or equivalent education. There have been reforms in the Finnish educational system, and therefore the content of the categories has changed a bit over time and cohorts. 'Lowest tertiary education' has partially evolved to 'lower degree-level tertiary education', for example, because the educational system of polytechnics (vocational college) came up in the 1990s.

We use multivariate event history model techniques to model the determinants of non-marital childbearing. First, we will use the sample of women who had a first childbirth between 1970 and 2009 to analyze the link between her educational attainment and non-marital first childbearing. Restricting the sample to childbirths between 1988 and 2009, it is possible to differentiate between births to single women (that is, non-union childbearing), births to cohabiting women and to married women. Further restricting the sample to cohabiting and married couples, we aim to analyze the influence of both partners' education on non-marital family formation. For each analysis, we will interact the level of education (of (a) the woman, (b) both partners) with the year of first childbirth. The multivariate analyses will also include measures of educational expansion.

Preliminary findings

In preliminary analyses, we calculated the educational composition of mothers with a marital first child and a non-marital first child, respectively (Figure 2a and Figure 2b). These statistics show that the increase in non-marital first births was not at all driven by the lowest educated women: women with no education beyond the basic level had over the childbirth cohorts fewer and fewer marital births, whereas the number of non-marital births was kept pretty constant. In contrast, very much of the increase in non-marital childbearing in late 20th century was driven by the secondary educated women. One interpretation would be that by climbing the next step on the educational ladder (from basic to secondary), these women were more inclined to also end up in alternative family arrangements. During the 1990s, there was a huge and fast increase in non-marital childbearing. This

increase seems to have been proportional in all educational groups except the lowest educated. In the 1990s and 2000s, there was a shift in the education of the female population from lowest tertiary education to lower tertiary education. This educational shift did however not produce a different family behavior: Taken lowest and lower tertiary educated women together, the proportions in non-marital childbearing appeared to be quite stable. Educational differences decrease (except for the group of higher tertiary educated women).

Figure 3a and 3b show basic logistic regressions on the likelihood that a mother had a non-marital first childbirth (vs. a marital first childbirth)across different childbearing cohorts. Looking in Figure 3a on the less educated, we see that vocational secondary women have become more similar to lowest educated women in recent decades. The highest educated women in contrast show a more and more distinct family formation behavior with much lower ratios of non-marital childbearing compared to women with lowest and lower tertiary education. Interacting childbearing cohorts with women's education (Figure 3b), we see a quite proportional increase of non-marital childbearing among the educational groups, although the highest educated show also here a more distinct behavior: non-marital childbearing increased, but to a lesser extent than among other educational groups. Women with lowest tertiary and lower tertiary level of education had very similar family formation behavior.

Preliminary conclusion

Research usually states that there is an increasing educational gradient in non-marital childbearing. Based on a rich dataset from Finland, we are able to show that this increase seems to be only temporary. Based on our preliminary analyses, we found that non-marital childbearing in Finland has gone through three different stages. In the first stage (1970s and 1980s), there was an increase in educational gradient in non-marital childbearing, due to the reduction of marital childbearing among basic educated women and the increase in non-marital childbearing among secondary educated women. In the second stage (1990s), the increase in non-marital childbearing was proportional among the educational groups. In the third stage (2000s), there were quite stable proportions of non-marital childbearing, but a shift in educational composition (among the higher educated) and a tendency towards decreasing educational differences.

In future steps, we want to take a deeper look on the role played by the educational expansion. We also aim to include both partners' educational level and to distinguish between births to single women and to cohabiting women. Furthermore, we will examine the importance of the timing of marriage relative to childbearing and take the union status at different points in time to check Whether the results are robust to different ways of measuring 'non-marital fertility'. Potentially important control variables such as age at first birth, and immigrant background will be included in the models.

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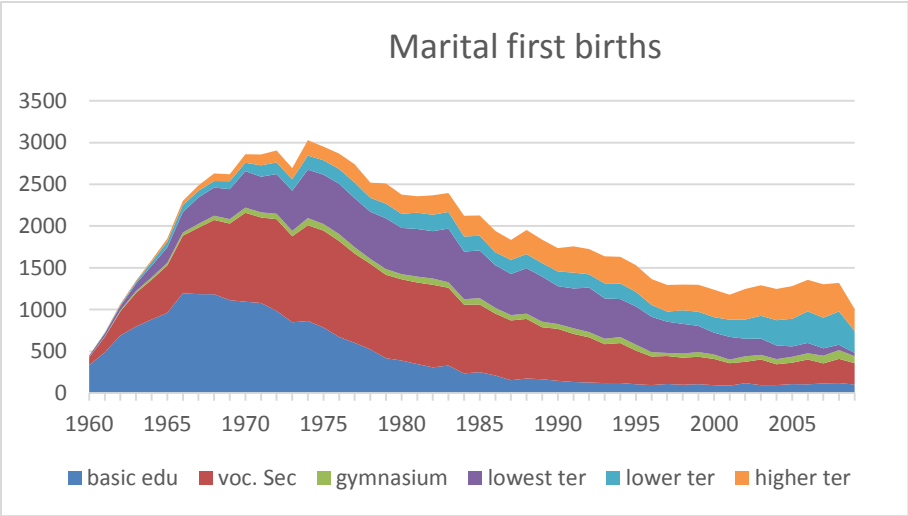
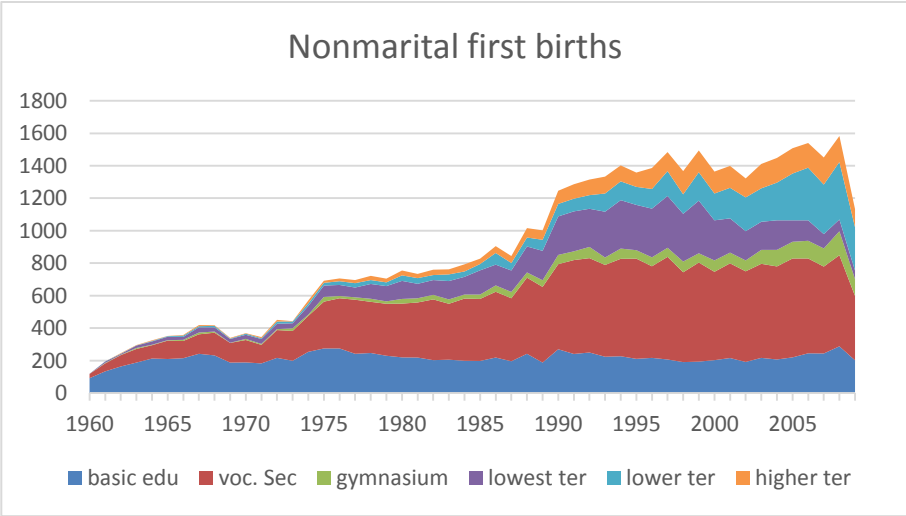


Figure 2a: Marital first births by childbirth cohorts and mother's educational degree at first childbirth, absolute numbers



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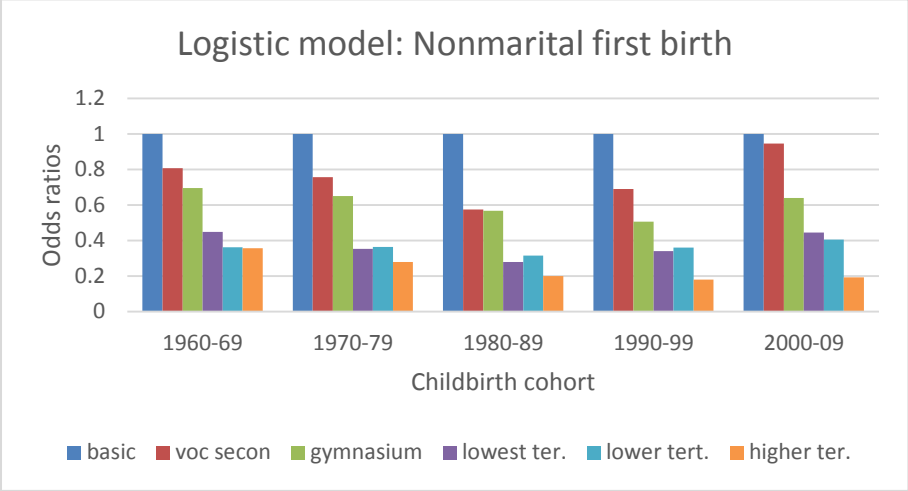

Figure 3a: Logistic model results on non-marital first births (vs. marital births) by mother's education: separate models for childbirth cohorts (decades), odds ratios

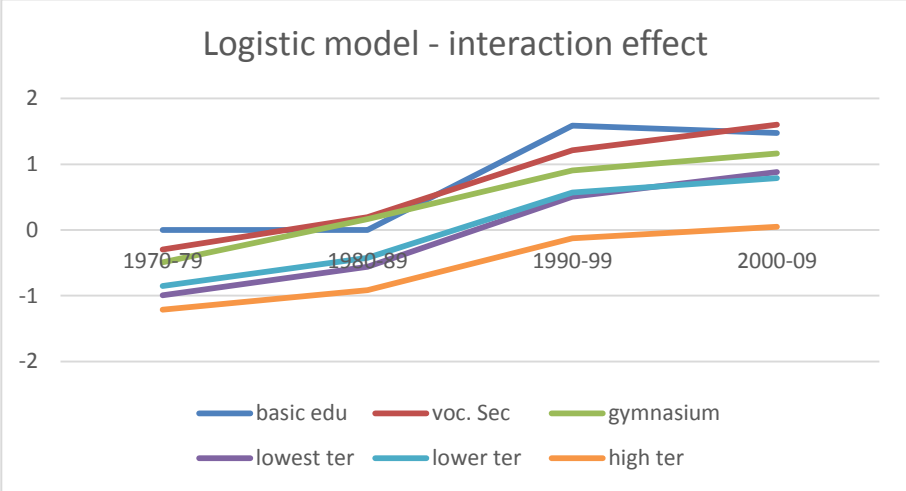

Figure 3b: Logistic model results on non-marital first births (vs. marital births): interaction of mother's education and childbirth cohorts (decades), odds ratios

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