# Childlessness and Educational Homogamy in Couples. A Cohort Analysis using Census Data in Hungary

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#### **ABSTRACT**

Definitive childlessness has risen over the last decades in Hungary and it was accompanied by educational expansion and a crucial change in partnership relations. We use census data to investigate changes in childlessness in two different Hungarian birth cohorts: one which made most of its fertility decisions before the political transition of 1989, and another which was intensively affected by it. When controlling association of current partnership and childlessness it becomes obvious that the increased proportion of 42-46 aged single man and women may be a strong driver of definitive childlessness. However, our main focus in the current analysis is on the educational differences within the couple and its relation to childlessness: is childlessness more recurrent in homogamous, hypergamous or hypogamous couples and how did the association change over time? Results show that in the younger cohort childlessness is more affected by educational differences in the couple than in the cohort born before the political transition. Besides, childlessness is the highest among couples in which educational differences of men and women are large: in cases where the women has only primary education while the men holds a university degree, the rate of childlessness is 29% and it is 16% when the opposite is true.

### **EXTENDED ABSTRACT**

### Introduction

We present an analysis of definitive childlessness among couples in Hungary adopting a gender perspective. We focus on educational differences and investigate childlessness according to educational homogamy in the couple. The data sources we use in this paper are the national Hungarian censuses from the years 1970, 1980, 1990, 2001, 2011 and the Microcensus from 2016. The emphasis is on men and women aged 42-46 years<sup>1</sup> in two different cohorts: the first was born between 1955-1959 and made most of its childbearing decisions before the change of the political regime in 1989. The second cohort was born between 1970 and 1974 and was already affected by the political transition, since these men and women began their childbearing career mainly after the fall of communism.

We investigate the increase in childlessness in relation to the increase in completed education and educational differences of the members of the couple. Indeed, the educational expansion since the 1960s' made more women graduate at university than men (von Bavel 2012; Spéder & Kamarás 2008), but several studies have also shown that women with higher education are more likely to remain childless than those who have lower education (e. g. Andersson et al. 2009; Berrington 2014) and this stands also for Central-European countries (Sobotka 2011; Spéder & Kapitány 2015).

<sup>&</sup>lt;sup>1</sup> After the age of 42 years the proportion of men and women having a first child in Hungary is negligible.

In Central-Eastern European countries childlessness is mostly an involuntary phenomenon and the proportion of men and women who desire not to have children at all is low (e.g. Dobritz 2005; Pongrácz 2011, S. Molnár 2011, Miettinen et al. 2014, Kapitány & Spéder 2014, 2018; Tanturri & Mencarini 2008). It has also been shown that the probability to remain childless is higher in certain life situations. Such as the expansion of education in the last decades in Hungary which resulted in a higher proportion of men and women terminating upper-intermediate and higher education. Childlessness is different among them than among lower educated couples and in each case educational homogamy is likely to have a different effect.

# Trends in childlessness in Hungary

Definitive childlessness has increased in the younger cohorts in Hungary and a U shape is visible when comparing the cohorts of women born in the 1920s' and those born since the 1960s' (Figure 1). Among men we see a different trend: it is in the cohorts born in the 1930s' when childlessness has begun to increase and it is now more frequent than among women. 26% of 42-46-year-old men born between 1970 and 1974 were childless in 2016. Only 15% of women were in the same situation.

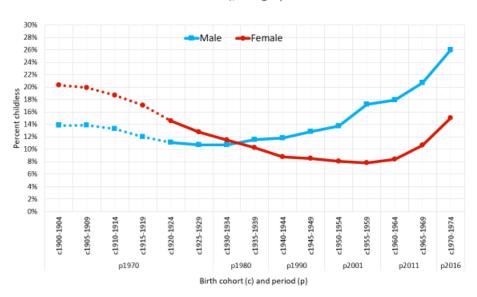


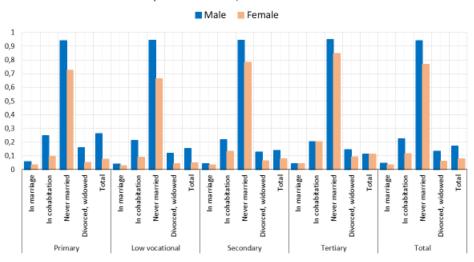
Figure 1. Share of childless male and female, aged 42-49\*, by birth cohort (1900-1974), Hungary

## Partnership status, educational homogamy and childlessness

Partnership status, more precisely the partnership carrier/trajectory is one of the most important factors that shapes childbearing, fertility decisions and so definitive childlessness. Although census data enables only to reveal current partnership status, partnership status at the beginning of the age of 40 years is related also to partnership carrier, and so it is relevant to include it in the analysis of educational homogamy and childlessness. Childlessness is the lowest among married couples and it is the highest among people without a stable relationship (Figure 2a, 2b). It is especially high among never married single and extremely high among never married single men among which 9 out of 10 is childless independently of their level of education. Higher childlessness can be observed among cohabitating but non-married individuals compared to married ones (Figure 2a and 2b).

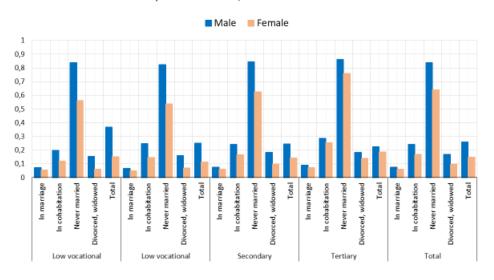
Women born in 1900-1919 are 50-80 years old in 1970.
Source: Hungarian National Censuses 1970, 1980, 1990, 2001, 2011, 2016, own calculation.

Figure 2a. Proportion of childless men and women aged 42-46 in 2001 by marital status and completed education, birth cohort 1955-1959



Source: Hungarian National Census 2001, own calculation.

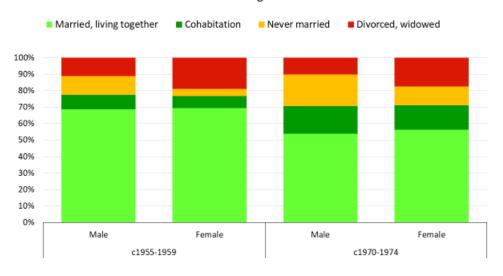
Figure 2b. Proportion of childless men and women aged 42-46 in 2016 by marital status and completed education, birth cohort 1970-1974



Source: Hungarian National Microcensus 2016, own calculation.

Shifts in partnership behaviour, the increasing number of people living alone and of those living in cohabitation is a primary driver of overall occurrence of childlessness, which will be taken into account in our analysis. Especially the proportion of never married men and women has increased in the younger cohort (Figure 3).

Figure 3. Composition of birth cohorts 1955-1959 and 1970-1974 by partnership status at age 42-46

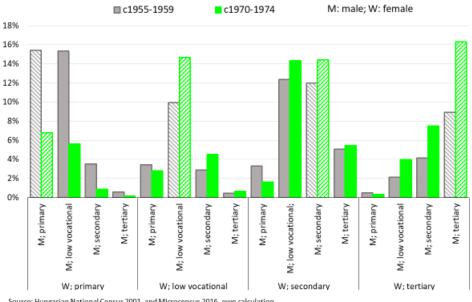


Source: Hungarian National Census 2001, and Microcensus 2016, own calculation.

We focus on *men and women living in a stable relationship* to analyse if the differences or similarities in their level of education (hypergamy, hypogamy or homogamy) influence definitive childlessness.

The level of education of the couples is rather similar: in both of our analysed cohorts in about 50% of the couples the man and the woman have the same level of education and there was a slight increase in this type of couples over time in all educational levels except for very low educated ones (Figure 4).

Figure 4. Distribution of partnerships by educational level of partners, birth cohorts of women 1955-1959 and 1970-1974, 2001, 2016



Source: Hungarian National Census 2001, and Microcensus 2016, own calculation.

Around 26% of women born in 1955-59 and 31% of those born in 1970-74 live however in a couple where their partners' level of education is lower and 28% and 17% live in a relationship where mens'

level of education is higher. Is definitive childlessness more common in these couples and did it change when comparing younger and older cohorts?

Our hypothesis which we will test are the following:

**H1) EDU HIGH M / LOW W**: In couples where men have a high level of education and women are lower educated, childlessness may be low since this model represents best the classical "male breadwinner model" with the men being the main provider of financial resources for the family and the women being in charge of the family life and the children. This model matches the best Hungarians' preferences (Makay 2015; Makay & Spéder 2019). There may be not more than a slight increase in childlessness in these couples in the younger cohort compared to the older cohort.

**H2) EDU HIGH W / LOW M:** Couples where the women are more educated than the men, childlessness is probably higher because it doesn't fit the traditional gender roles: women may earn more than their partner and the opportunity cost for having children may thus be higher. We expect a rise in childlessness over time in these couples since the opportunity cost of childrearing has risen since the 1990s'.

#### H3) Couples with educational homogamy (EDU M = EDU W)

H3a) In couples where both partners have low level of education, childlessness may be low because of the overall low opportunity costs for childrearing. (EDU LOW M / LOW W)

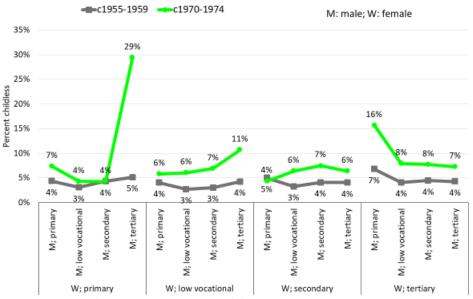
H3b) In couples where both partners are highly educated, the opportunity cost of childbearing has risen in recent decades and these couples might be more often childless in the younger cohort. (EDU HIGH M / HIGH W)

H3c) In couples where both partners have an intermediate/secondary level of education, childlessness is expected to be high since these couples have most often a fragile status on the labour market. (EDU MIDDLE M / MIDDLE W)

H3d) The proportion of educational homogamous couples has risen over time, and their childlessness is expected to have decreased.

Our first results show that while the differences in education of the couple in the younger cohort have an important impact on childlessness, in the older cohort the partners education doesn't have a significant effect. Besides, childlessness is higher among those couples where differences in education are higher: in cases where the woman is only low educated while the man holds a university degree, the rate of childlessness is 29% and it is 16% when the opposite is true (Figure 5). However, couples with a so large differences in their level of education are less common than homogamous couples, but their importance in explaining definitive childlessness seems to be high.

Figure 5. Proportion of childless couples by the age of 42-46 by educational level of the partners and by the birth cohort of the women in 2001, 2016



Source: Hungarian National Census 2001, Microcensus 2016, own calculation.

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