

Education and second births in Hungary

The mediating role of union status

Objectives

Recent studies find a positive effect of education on the transition to second births. Can the positive educational gradient be explained in terms of union status, which presumably affects partnership stability?

Hypothesis on the mediating role of union status:

higher education → union stability / "traditional" marriage → second births

Union status categories in this study:

- "Shotgun" marriage = marriage occurs between first conception and first birth
- "Traditional" marriage = marriage occurs before first conception
- Cohabitation

Findings

Higher education has a robust and positive effect on transition to second births in Hungary

This is a direct effect which cannot be explained away in terms of union status and partnership stability.

Results on the mediating role of union status are mixed:

- "traditional" marriages stabilize unions and have a positive effect on second births – see Model (2):
- No evidence that education would affect union status – and surprisingly, cohabitation has a positive effect on second births – see Model (3):



Sample

Three waves of Hungarian GGS (2001, 2004, 2008)

Women born between 1961-1983, participating in all three waves and being partnered mothers of one child (N=1554)

Person-month dataset, with time-varying variables.

Models

Model	Objective	Description	Equations
(1)	Examine the relationship between education and second birth	probit model of second conception	(C)
(2)	Adjust estimates for unobservable factors which affect both second births and partnership stability	conception probit estimated jointly with a probit of partnership dissolution	(C) + (D)
(3)	Adjust estimates for the endogeneity of union status (when first child was born)	conception probit estimated jointly with a multinomial probit of partnership at first birth.	(C) + (SM) + (TM)

Estimation with Stata, user-written *cmp* command

Variables in the equations

The conception (C), the dissolution (D) and the two partnership equations, "shotgun" marriage (SM) and "traditional" marriage (TM) equations include:

Variable	(C)	(D)	(SM) (TM)
Partnership status categories: cohabitation, „shotgun" marriage, "traditional" marriage	X	X	
Educational level categories: primary, lower-secondary, upper-secondary and higher	X	X	
Age of the first child	X	X	
Current partnership duration	X	X	
Age at the time of first delivery	X		
Experience of family disruption during childhood (until age 14)*		X	X
Birth cohort categories: 1961-65, 1966-70, 1971-75, 1976-83*	X	X	X
Highest level of education*			X
Log number of siblings*			X
Father's educational level when R was 14.*			X
Mother's educational level when R was 14.*			X

* the variable is time-constant

Results

Only the coefficients of education and union status are presented.

Reference categories are upper-secondary education and "shotgun" marriage.

Model (1)

There is a positive relationship between higher education and the transition to second births:

	(C)
Education = primary	ns
Education = lower secondary	ns
Education = higher	+
Partnership = cohabitation	ns
Partnership = "traditional" marriage	+

Model (2)

The positive effect of higher education remains if we control for latent factors which affect both fertility and the hazard of separation

"Traditional" marriages (i) are more stable than cohabitations and "shotgun" marriages, and (ii) have a positive effect on second births

	(C)	(D)
Education = primary	ns	ns
Education = lower secondary	ns	ns
Education = higher	+	ns
Partnership = cohabitation	ns	+
Partnership = "traditional" marriage	+	-
correlation of residuals		-

Model (3)

The positive effect of higher education remains if we control for the endogeneity of union status

Surprisingly, cohabitations rather than "traditional" marriages offer a favorable environment for second births.

	(C)	(SM)	(TM)
Education = primary	ns	ns	ns
Education = lower secondary	ns	+	ns
Education = higher	+	ns	ns
Partnership = cohabitation	+		
Partnership = "traditional" marriage	ns		
correlation of residuals		+	+