Educational institutions as mating markets
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Juho Härkönen and Margarita Chudnovskaya, Stockholm University
juho.harkonen@sociology.su.se

Educational institutions are considered one of the most important structured settings in which partners meet (Kalmijn & Flap 2001), and meeting in educational institutions is a key explanation for educational homogamy. The structure and social composition of schools can also shape assortative mating according to other characteristics, such as age, ethnicity, and class background. Yet, similar to research on mating markets generally, data limitations commonly restrict the analyses of the importance of educational institutions as meeting places (cf. Schwartz 2013).

The objective of this study is to analyze educational institutions as mating markets by following a complete birth cohort (born in 1970) in Sweden with population register data, which enable us to identify the high schools (*Gymnasiums*) and universities, which the cohort members attended. Our study carries some important advantages over previous analyses. Schools can be considered relatively well-defined mating markets. With full population coverage, our data enable us to construct compositional measures of eligibles in these schools. Many previous studies, in contrast, have either surveyed the meeting places of actual couples (thus missing information on eligibles), or analyzed less-well defined mating markets, such as cities or labor market areas (Schwartz 2013: 464).

More specifically, we analyze whom members of our cohort had their first child. Most first children in Sweden are born outside marriage (though often in a cohabiting partnership), and therefore this outcome measure serves as an appropriate indicator of family formation in this context. Furthermore, assortative mating distributes resources to children and thus shapes inequalities in their life chances.

We address the following questions. First, we provide descriptive estimates of couples who overlapped at each educational level, providing upper-bound estimates of how many of them met in educational institutions. By comparing these to similar estimates of overlapping in neighborhoods and municipalities, we can get an idea of how important and efficient educational institutions are as mating markets. Second, we model how the structural characteristics and social composition of these educational institutions affect the likelihood of meeting one's partner within an educational institution. We look at the size, sex ratio, age, ethnic, and social background composition of the schools. Third, we analyze how these compositional effects develop over time. We expect a general waning of the effects after graduation (Mare 1991; Blossfeld and Timm 2003), as alumni become exposed to new social networks. Since university is attended closer to the common family formation years, we expect its effects to be stronger. In follow-up studies, we will also analyze how school compositions shape assortative mating patterns.

Analysis

We use Swedish population register data from the "Sweden in Time: Activities and Relations" (STAR) database, compiled by Statistics Sweden for Stockholm University. These data cover the entire Swedish population and include multiple demographic and socioeconomic variables. They allow us to reconstruct educational life courses by including identifiers for the educational institutions attended. This information allows us to assess whether both partners (here, parents of a child) attended a given educational institution at the same time and to construct contextual level indicators of the compositional characteristics of these institutions.

Our research design is the following. We start from the cohort born in 1970 (N=140,079), to which we refer to as the "index cohort" and whom we follow until year 2007, when the cohort members were 37 years old. We reconstruct their educational careers after the 9 years of compulsory education and focus on high schools ("*Gymnasium*", typically lasting two or three years) and universities. High school attendance was identified based on information of applications, admissions and graduation from each schools. In case of drop out (in which case we did not observe when the student dropped out from high school), we assigned the individual as attending the first year of high school. University attendance was identified through annual information on enrolment in tertiary institutions.

We follow the index persons until the end of 2007 (age 37). Those who emigrated or died before these events were excluded from the analysis. If the index person had a child, we know who the other parent of the child was and can assess whether s/he overlapped with the index person at either schooling level.

As mentioned, the school identifiers enable us to construct contextual level measures of the educational institutions the index cohort members had attended. We construct a measure of the sex ratio of the high schools and universities (defined as % men), their age compositions (% of student up to three years older or younger of the opposite sex), ethnic compositions (% of Swedish background of the opposite sex), and class compositions (% hailing from the upper service class (EGP I), according to the Erikson-Goldthorpe schema (Erikson and Goldthorpe 1992)). In subsequent stages of the research, we will construct more specific contextual measures (such as more detailed measures of ethnic composition).

First, we provide a descriptive analysis of the extent to which partners overlapped in educational institutions and rates of meeting one's partner in these institutions. We compare these estimates to similar ones calculated from other mating markets, such as neighborhoods and towns. Second, we analyze which compositional features of educational institutions promote such matching, using the measures summarized above. We use multilevel logistic regression analyses with our contextual variables with controls for being a native Swede and for class background. We run the analyses separately for men and for women. Third, we run event history models to analyze timing of family formation, assuming that mating market effects generally wane over time. These findings have implications for assortative mating and the effects of contextual characteristics of educational settings in a context in which attendance in tertiary education is rising and family formation postponed.

Preliminary results

Our preliminary results refer to the index population, that is, the Swedish population born in 1970 and whether and with whom they had a child by the end of 2007 (age 37). 72 % of women and 60 % of men born in 1970 had been observed to have a child by this time.

In our data, 4.2 % of the index population overlapped with ("found") their partner in high school, while 8.5 % of the population overlapped with their partner in university. Out of those who attended university (33.3 %), 25.6 % overlapped with their partner in university and out of couples in which both partners attended university, 43.1 % attended the same university at the same time. In other words, one can infer that up to 43.1 % of academically homogamous couples met in university.

Below, we show results from multilevel logistic regression models on the probability of having a child with a partner with given characteristics by 2007. The first analysis (Table 1) analyze the probability of "meeting" one's partner in a high school and university, respectively. The predictor variables are the compositional characteristics of these institutions (sex ratio, age composition, ethnic composition, and class background composition), while controlling for class background and ethnic origin (not shown). The models are run separately for men and for women.

Table 1. Characteristics of high schools (*Gymnasium*) and universities and probability to meet partner in the respective institutions.

	Partner from high school		Partner from university	
	Men	Women	Men	Women
% Men	0.97**	1.02**	0.99	1.03**
% age ± 3 yrs	1.02**	1.03**	1.05*	1.04*
% Swedes	1.04**	1.02	1.01**	1.00
% from EGP I	0.99	0.98*	1.02**	1.02**

Control variables: Native Swede, Class background; * p <0.01; ** p<0.001

The findings are generally expected. A higher share of men increases the women's probability of having met one's partner in high school, and decreases the probability of meeting one's partner in high school for men. However, there is no sex ratio effect of universities for men. A higher share of students of similar age likewise increases the probability of finding a partner from an educational institution, pointing to a preference for age homogamy. Interestingly, ethnic composition affects the likelihood of "school homogamy" for men, but not for women. A higher share of students from the upper service class increases in a university increases the likelihood of finding a partner from a university, but decreases it for finding a partner from a high school (for women).

These preliminary findings show that the social compositional characteristics of educational institutions matter for partnering, both at earlier and later stages of the educational career. They lay the ground for our future, more detailed analyses of how and for whom these characteristics matter, and how they might shape patterns of assortative mating.

Literature

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