

Peer Effects in Young Adults' Marital Decisions¹

Preliminary, please do not quote

Effrosyni Adamopoulou²

Universidad Carlos III de Madrid

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Abstract. Getting married or not is a decision that most young adults in US face. Cohabitation, i.e. living together with a partner without being married, is an intermediate state that has emerged in recent times. This paper tries to identify peer effects among highschool friends in their marital decisions in later life. We use data from Wave III of the National Longitudinal Study of Adolescent Health (Add Health). This database contains detailed information on the relationship history of young adults as well as information on who is a friend of whom and whether friendship has lasted after highschool. With this information we can deal with the possible endogeneity of friendship creation. We construct a balanced panel for the years 1998-2002 using the calendar of all past and current relationships of the respondents, and we match friends in a way that allows to recover the marital status of each individual and of her friends at any given year. Hence, we are able to analyze how the marital transitions of individuals depend on the marital status of their friends. The panel structure allows us to deal with the reflection problem. Following the literature we instrument the marital status of i 's friends using the contextual variables. Moreover, we use a fixed effects panel data estimator in order to deal with the correlated effect (endogeneity). Preliminary results after controlling for various observable, family,

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²Department of Economics, Universidad Carlos III de Madrid, Calle Madrid 126, Getafe (Madrid), 28903, SPAIN. Email: eadamopo@eco.uc3m.es.

and contextual characteristics, out of wedlock births, and relationship duration indicate that peer effects in marital decisions are significant, especially among females. Robustness checks using former and placebo friends support our results, and indicate that actual peers do matter.

JEL classifications: A14, J12, J16, Z13

Keywords: peer effects, friends, marriage, cohabitation, marital decisions

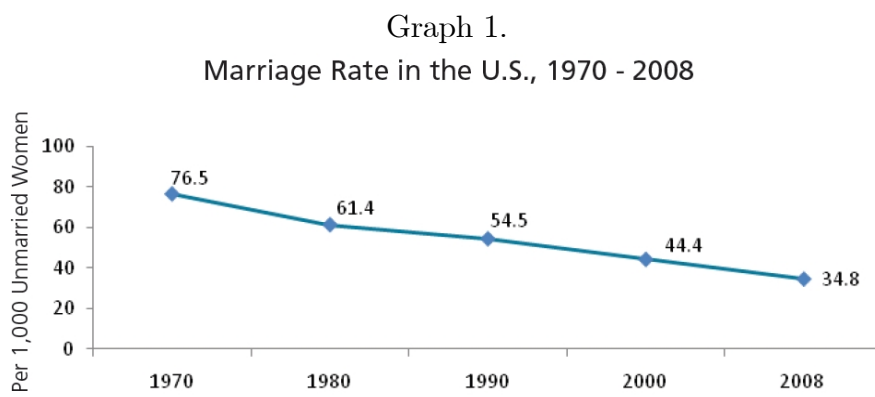
1 Introduction

Friends are an important part of individuals' life and constitute, together with the family, the social circle in which individuals develop. Friends often spend time together participating in the same activity (sports, school, etc), discussing about different topics and exchanging ideas. It is not then unrealistic to think that friends might affect each other's behavior through their opinions or even through imitation. In fact, there is a large literature on peer effects showing that friends actually affect, among others, the individual performance at school (Calvó-Armengol et al., 2009), obesity (Cohen-Cole and Fletcher, 2008), smoking habits (Fletcher, 2010), alcohol consumption (Fletcher, 2011), fertility (Kuziemko, 2006; Ciliberto et al., 2010; Hensvik et al., 2010), the probability of finding a job (Calvó-Armengol and Jackson, 2004; Cappellari and Tatsiramos, 2010), and the probability of engaging in criminal activities (Patacchini and Zenou, 2012).

But what about marital decisions? Getting married or cohabiting is a decision that many young couples face. In order to decide what is best to do, a couple might ask their parents, sibling or friends. Cohabitation, i.e. living together without being married can be against the religion or the parents' will. However, if most of a couple's friends are cohabiting the couple might also decide to do so. Likewise, if most friends of an individual are married, she may also want to get married in order for example to avoid being stigmatized by her friends. In this way, what the couple considers as a norm depends not only on the society as a whole (e.g. religion or tradition) but also on one's circle of close friends. The question we try to answer is

whether the marital decisions of one's friends have any effect on one's own marital decisions.

During the last decades many rapid changes in marital behavior took place. As graph 1 shows, the marriage rate in the US has fallen drastically. Although many studies have tried to identify the factors behind this drop (specialization, Becker (1981), and contraceptive pill, Goldin & Katz (2002) to name a few) there is still a part unexplained. One can think of a social multiplier, i.e. the peer effect, that amplifies the magnitude of these changes.



Sources: The 1970, 1980, and 1990 data come from the Centers for Disease Control and Prevention/National Center for Health Statistics. The 2000 data come from the National Center for Health Statistics, CDC and the Census Bureau, Census 2000. The 2008 data come from the Census Bureau, American Community Survey, 2008.

The biggest obstacle in identifying peer effects in marital decisions of the individuals was data availability. Examining a similar idea, Billari et al. (2007) use simulated data to show that social influence is the key driving force of the process of first marriage. Drewianka (1999 and 2003) uses county data from PUMS and shows that a 10 percentage point increase in the fraction of persons aged 16-44 in a county group who are single leads to a decrease in individual's propensity to marry of an order of 1.5-2.0 percentage points. Moreover, he finds evidence that social effects operate through markets (search process, economies of scale in the production of goods not equally enjoyed by married and single people) and not directly through stigma or role modelling. Not only initiation but also termination of marriage might be influenced by peers. McDermott et al. (2009) show that divorce can spread between friends, siblings and coworkers using the Framingham Heart Study. We use data from the National Longitudinal Study of Adolescent Health

(Add Health). This database enable us to identify peer effects in marital decisions among highschool friends as we will see below. In the next section we use a model of conformism in order to study a possible way friends can influence an individual's marital decisions. The model will motivate the empirical analysis that will follow.

2 Model

The model is based on Patacchini and Zenou (2012), who study juvenile delinquency using a model of conformism. The key element of the model is the notion of conformism, i.e., quoting the authors description, *'the idea that the easiest and hence best life is attained by doing one's very best to blend in with one's surroundings and to do nothing eccentric or out of the ordinary in any way'*. Conformism might also be important for young adults when they decide whether to get married or cohabit. We first define the network structure of agents' friendships, and we then describe the preferences of the agents.

There is a finite number of agents $N = \{1, \dots, n\}$. We use the n -square adjacency matrix G of a network g to keep track of the direct connections in this network (see Jackson, 2008). Two agents i and j are directly connected in the network g if and only if $g_{ij} = 1$, and $g_{ij} = 0$, otherwise. We set $g_{ii} = 0$, i.e. the agent cannot be a friend of herself. The set of direct connections of agent i is $N_i(g) = \{j \neq i \mid g_{ij} = 1\}$, which is of size $g_i = \sum_{j=1}^n g_{ij}$. Note that in general $N_i(g) \neq N_j(g)$, unless the network is complete and everybody is a friend of everybody.

Each agent decides whether to stay single and just date with a partner, cohabit or get married. We assume, therefore, that there are many different degrees of formality that the relationship can take ranging from very informal (dating) to very formal (getting married). We denote the formality of the relationship by $f_i(g)$. We assume that $f_i(g)$ is continuous. We then define as the average formality of the relationships of i 's friends as $\bar{f}_i(g) = \frac{1}{g_i} \sum_{j=1}^n g_{ij} f_j$

Each agent selects a degree of formality $f_i \geq 0$ for her relationship and receives a payoff $u(f_i, \bar{f}_i)$ given by the utility function

$$u_i(f_i, \bar{f}_i) = a + b_i f_i - \pi f_i \phi - c f_i^2 - d(f_i - \bar{f}_i)^2,$$

with $a, c, d > 0$, and $b_i > 0, \forall i$.

There is a benefit from formalizing the relationship, which is given by the term $a + b_i f_i$. The agents are ex ante heterogeneous with respect to b_i . b_i is assumed to be deterministic and observable by all agents in the network and it corresponds to observable characteristics of individual i (e.g., gender, race, age, education, religion etc.) and to the observable average characteristics of individual i 's friends (contextual effects). More specifically,

$$b_i(x) = \sum_{m=1}^M \beta_m x_i^m + \frac{1}{g_i} \sum_{m=1}^M \sum_{j=1}^n \theta_m g_{ij} x_j^m,$$

where x_i^m are observable characteristics of individual i , the term $\frac{1}{g_i} \sum_{m=1}^M \sum_{j=1}^n g_{ij} x_j^m$ captures the contextual effects, and β_m, θ_m are parameters.

There is also a cost from formalizing the relationship, which is given by the term $-\pi f_i \phi - c f_i^2$. π is the probability that the relationship ends and ϕ is the cost of ending the relationship. Note that the cost of ending a relationship increases as the formality increases, i.e. it is more costly to separate if one is married than if one is cohabiting. Likewise, it is more costly to separate if one is cohabiting with a partner than if one is just dating this partner. The term $-c f_i^2$ is needed so as the utility function to be concave. We can think of $c f_i^2$ as the cost from formalizing the relationship in terms of being more constrained (not easy to cheat, need to have a good relationship with the partner's family, be more tidy etc). Alternatively, we can think of this term as follows: it is more costly to formalize the relationship from dating to cohabitation than from cohabitation to marriage. The logic behind it, is the fact that cohabiting requires moving in with the partner which is completely different than just dating. Once one has made the step to live with the partner it is easier to formalize the relationship more by engaging or getting married.

The last term in the utility function, $-d(f_i - \bar{f}_i)^2$, reflects the influence of friends' behavior on own action. Each agent tries to minimize the distance between herself and her group of friends. The agent loses utility from failing to conform to others. d is the parameter of taste for conformity. Note that d might be different for males and females.

In this framework there exists a unique Nash equilibrium (Patacchini and Zenou,

2012) where each individual chooses the optimal formality of relationship f_i^*

$$f_i^* = \frac{d}{c+d} \bar{f}_i + \frac{b_i}{2(c+d)} - \frac{\pi\phi}{2(c+d)},$$

which is increasing in \bar{f}_i . In other words, the more formal the relationships of one's friends are, the more the individual will formalize her own relationship.

3 Data

We use data from the National Longitudinal Study of Adolescent Health (Add Health).³ Add Health is a longitudinal study of a nationally representative sample of adolescents in grades 7-12 in the United States during the 1994-95 school year. The Add Health cohort has been followed into young adulthood with four in-home interviews (Waves I-IV), the most recent in 2008, when the sample was aged 24-32.

Wave III interviews took place in years 2001 and 2002. In Wave III the respondents had to list all their current and previous sexual relationships (82% non missing responses) providing detailed information on the starting and ending date, whether they cohabited and how long, when they got married etc. Using this information we create a balanced panel for the years 1995-2002. The procedure is similar to the one in Xie et al. (2003), Raley et al. (2007) that analyze the determinants of marital transitions. These studies however do not consider the effect of friends.

In Wave I each participating school provided a student roster. Project staff assigned an identification number to each name and provided copies of the rosters to students for identifying their friends (up to five males and five females) as they filled out the questionnaire. In Wave III the interviews of original Add Health respondents were pre-loaded with some Wave I and Wave II data including, for some respondents, a section about friends. In particular, for respondents of Wave III who were in the 7th or 8th grade at Wave I, an algorithm, based on clubs and activities from previous data, was used to select 10 names of students who also attended the same school. These respondents were asked to identify whether or not

³This research uses data from AddHealth, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris. Special acknowledgment is due to Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from AddHealth should contact AddHealth, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524, USA (addhealth@unc.edu).

they were currently or had been previously friends with each of the 10 listed names. We treat two students as friends if at least one of the two has identified the other as his/her best friend. By matching the identification numbers of the friendship nominations to respondents' identification numbers we obtain information on the characteristics of nominated friends. In this way we know at any given year the marital status of the respondent and the marital status of his/her friends.

4 Empirical Strategy

Individual behavior may move conjointly with average peer group behavior for three different reasons. i) Endogenous effects; the behavior of the individual is causally influenced by the behavior of the group. This is the peer effect that we are trying to estimate. ii) Contextual effects; the behavior of the individual is influenced by the characteristics of the group. For example an individual might decide to get married because her friends are very religious independently from whether the friends are married or not. iii) Correlated effects; the individual and the group behave in the same way due to similar environments or unobservables (endogenous friendship formation/sorting). This problem arises from the fact that individuals select the school they attend as well as their friends or because both the individual and her friends are subject to common unobserved shocks.

Manski (1993) shows that identifying the endogenous and the contextual effects separately in a reduced form linear model is not possible. This is called reflection problem and it is due to the fact that group behavior is by definition the aggregation of individual behavior. Solutions that have been proposed in order to solve the reflection problem consist of using an IV, using panel data or network data. Examples of IVs include Kuziemko (2006) that used the fertility of the siblings of one's colleagues, and Fletscher (2011) that use the alcohol consumption of the parents of one's classmates. Cappellari and Tatsiramos (2010) use panel data, where the reflection problem disappears since the characteristics of the friends are already determined at the time of the transition. Pattacchini and Zenou (2011) use network data where the reflection problem is also eluded. This is because in the case of network data the reference group of each individual (nominated friends) is

different.⁴

Now let us focus on the correlated effect. One might worry that people make new friends as they get married, often through their spouse. In our case we consider friends since highschool and we have information about friendship dynamics. This solves part of the endogenous friendship formation in later years. But still there can be unobservables or endogeneity in friendship destruction. Solutions to the correlated effect that have been proposed in the literature include a panel data fixed effects estimator and a network fixed effects estimator for cross-sectional data (pseudo fixed effects). Assuming that any correlation between the behavior of the peers and individual unobserved traits is due to traits that do not vary over time a panel data fixed effect estimator can deal with the correlated effect. This is the estimator we are also going to employ.

5 Regression analysis

The benchmark regression is

$$f_{it} = \underbrace{\xi f_{it}}_{\text{endogenous effects}} + \underbrace{\sum_{m=1}^M \beta_m x_{it}^m}_{\text{individual characteristics (gender, age, race, etc)}} + \underbrace{\frac{1}{g_i} \sum_{m=1}^M \sum_{j=1}^n \theta_m g_{ij} x_{jt}^m}_{\text{average peer characteristics (contextual effects)}} + y_t + \varepsilon_{it}$$

where $f_{it} = \begin{cases} 1, \text{ married} \\ 0, \text{ not married} \end{cases}$, $\overline{f_{it}} = \%$ married peers, $x_{it}^m = i$'s individual characteristics (m variables): gender, age, education, race, religiosity, beauty, $\frac{1}{g_i} \sum_{j=1}^n g_{ij} x_{jt}^m =$ average individual characteristics of i 's n peers: $\%$ female peers, average age, average education, $\%$ african american peers, average religiosity, average beauty, and $y_t =$ year dummies.

⁴By contrast, in absence of network data, the peer group of each individual consists of the average of all the others (in a class, in a school, in a firm etc)

5.1 Wave I nominations

We first examine the determinants of the transition into marriage using the friends nominations from Wave I. Hence, we assume that friendships have lasted after highschool. This assumption will be relaxed afterwards using the updated information from Wave III (only for the subsample that this information is available). Table 1 shows the descriptive statistics for the respondents with non missing own and peer relationship information.

Table 1. Individual characteristics^{1,2} in 2002

Characteristic	
% girls	55.27
Mean Age	22.42
% cohabiting	19.24
% married	16.94
% African American	10.57
% with college education	61.09
Mean Religiosity (7-category scale)	1.95
Mean Beauty (5-category scale)	3.57

¹ Individuals with non missing own and peers' relationship history

² Corrected for survey design

We start our analysis with a linear probability model (Table 2). The dependent variable TM takes the value 1 if someone gets married,⁵ and the value 0 if someone is single (alone or just dating). The variables of interest are the ratio of each individual's friends that are cohabiting and the ratio of friends that are married. We include as regressors the characteristics of the individuals, such as age, gender, race, education, religiosity, and a measure of beauty (the interviewer had to assess the physical attractiveness of the respondent). All variables are explained in the appendix. We also account for parental characteristics, such as the parental marital status at Wave I, mother's education and mother's age at marriage. We include year dummies in all specifications. We use the appropriate weights and robust standard errors clustered at the school level. In this specification we also include contextual

⁵We conducted the same analysis for the transition into cohabitation and we found no statistically significant peer effect.

variables, i.e. the average individual characteristics of the peers. The percentage of married peers has a statistical significant effect on the transition into marriage. The percentage of cohabiting peers does not seem to matter. The effect is small, but this can be due to the reflection problem.

Table 2. Determinants of transition into marriage: TM=0 single, TM=1 enter marriage

Specification	OLS	2SLS
Definition of Peers	Nominated friends	Nominated friends
	(1)	(2)
% married peers	0.037***	0.095**
% cohabiting peers	0.010	-0.005
Individual characteristics	Yes	Yes
Parental characteristics	Yes	Yes
Contextual characteristics	Yes	Used as instruments
No of person-years	15,161	15,161
R ²	0.047	0.064
F statistic	-	6.55; 16.46
J statistic p value	-	0.147

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used

Individual characteristics: gender, age, education, race, religiosity, beauty

Parental characteristics: marital status at Wave I, mother's education, mother's age at marriage

Year dummies included in all specifications

We then perform 2SLS in order to improve the identification. Following the literature (see Fletcher, 2011 for a review) we assume that the contextual variables do not have any effect (indeed their effect was statistically insignificant in the OLS) and we exclude them from the regression. Instead, we use these contextual variables as an instrument for the percentage of married and cohabiting peers. The F statistic is not so high indicating that the instrument can be weak but the J statistic does not reject the hypothesis of the validity of the instruments. The peer effect of married peers remains statistical significant and its magnitude increases.

However, the correlated effect might still confound our results. To deal with it we perform a panel data fixed effect estimation. In this specification we include only

time varying variables (age, education), and in addition out of wedlock births and the duration of the relationship. The peer effect remains significant but decreases in magnitude.⁶

Lastly, we extend our network to not just the nominated friends but also to the friends of friends. At first, we thought that we could use the marital status of friends of friends as an instrument but it turns out that it is not valid. Instead, extending the network of friends increases the size of the peer effect.

Table 3. Determinants of transition into marriage: TM=0 single, TM=1 enter marriage

Specification	Linear Prob/FE	Linear Prob/FE
Definition of Peers	Nominated friends	Nominated friends and friends of friends
	(2)	(3)
% married peers	0.056***	0.065***
% cohabiting peers	0.007	0.010
Individual characteristics	age, education	age, education
Parental characteristics	No	No
Births and rel. duration	Yes	Yes
Contextual characteristics	avg. age, education	avg. age, education
No of person-years	15,253	15,253
R ²	0.077	0.077

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used

Individual characteristics (time varying): age, education

Year dummies included in all specifications

We also perform the analysis for girls and boys separately to see whether there are any gender differences on the size or the direction of the effect. Indeed, the peer effect on boys (Table 5) is either not statistically significant or smaller than the peer effect on girls (Table 4). This result might reflect a stigma towards unmarried females.

⁶We also conducted the analysis using only same-gender friendships and the peer effect is larger.

Table 4. Girls' determinants of transition into marriage

TM=0 single, TM=1 enter marriage

Specification	2SLS	Linear Prob/FE
Definition of Peers	Nominated friends	Nominated friends
	(1)	(2)
% married peers	0.164*	0.063***
% cohabiting peers	-0.036	0.005
Individual characteristics	Yes	age, education
Parental characteristics	Yes	No
Births and rel. duration	No	Yes
Contextual characteristics	Used as instruments	age, education
No of person-years	8,226	8,295
R ²	0.067	0.076
F statistic	6.27; 12.14	-
J statistic p value	0.822	-

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used
 Individual characteristics: gender, age, education, race, religiosity, beauty; Parental characteristics:
 marital status at Wave I, mother's education, mother's age at marriage; Year dummies included

Table 5. Boys' determinants of transition into marriage
 TM=0 single, TM=1 enter marriage

Specification	2SLS	Linear Prob/FE
Definition of Peers	Nominated friends	Nominated friends
	(1)	(2)
% married peers	0.036	0.043**
% cohabiting peers	-0.005	0.010
Individual characteristics	Yes	age, education
Parental characteristics	Yes	No
Births and rel. duration	No	Yes
Contextual characteristics	Used as instruments	age, education
No of person-years	6,935	6,958
R ²	0.047	0.075
F statistic	4.94; 5.10	-
J statistic p value	0.067	-

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used
 Individual characteristics: gender, age, education, race, religiosity, beauty; Parental characteristics:
 marital status at Wave I, mother's education, mother's age at marriage; Year dummies included

5.2 Wave III nominations: current friends

As we already mentioned, for the respondents of Wave III who were in the 7th or 8th grade at Wave I, an algorithm, based on clubs and activities from previous data, was used to select 10 names of students who also attended the same school. These respondents were then asked to identify whether or not they were currently or had been previously friends with each of the 10 listed names. Table 6 shows the descriptive statistics for these respondents.⁷

⁷These respondents belonged to the youngest cohort of Wave I, this is why their average age and the % married is lower than those of all the respondents.

Table 6. Individual characteristics^{1,2} in 2002

Characteristic	
% females	49.46
Mean Age	20.61
% cohabiting	19.15
% married	7.25
% African American	12.80
% with college education	50.41
Mean Religiosity (7-category scale)	2.19
Mean Beauty (5-category scale)	3.56

¹ Individuals with non missing own and peers' relationship history

² Corrected for survey design

We repeat the analysis using only the friends that the respondents have identified as current ones and the results do not change much (Table 7).

Table 7. Determinants of transition into marriage: TM=0 single, TM=1 enter marriage

Specification	2SLS	Linear Prob/FE
Definition of Peers	Current friends	Current friends
	(1)	(2)
% married peers	0.154**	0.040*
% cohabiting peers	-0.011	0.020
Individual characteristics	Yes	age, education
Parental characteristics	Yes	No
Births and rel. duration	No	Yes
Contextual characteristics	Used as instruments	age, education
No of person-years	6,543	6,543
R ²	0.014	0.047
F statistic	7.46; 6.12	-
J statistic p value	0.875	-

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used

Individual characteristics: gender, age, education, race, religiosity, beauty; Parental characteristics: marital status at Wave I, mother's education, mother's age at marriage; Year dummies included

6 Robustness

At this point one may think that it is natural to find a positive correlation among individuals that went to the same school and share many common characteristics and thus may doubt about the causality of the peer effect. In order to convince the reader, we perform robustness checks using different groups of peers, namely ghost and placebo friends.

6.1 Ghost friends

There are respondents who indicated that had been previously friends (but not anymore) with some of the 10 listed names. Moreover, we have information on the month and year that the respondent last saw the former friend in person, talked with her on the telephone, or exchanged email. We can thus consider the effect of ghost friends, i.e. the effect of former friends in the years after the friendship has

Table 8. Determinants of transition into marriage: TM=0 single, TM=1 enter marriage

Specification	2SLS	Linear Prob/FE
Definition of Peers	Former friends	Former friends
	(1)	(2)
% married peers	-0.012	0.058
% cohabiting peers	0.021	-0.002
Individual characteristics	Yes	age, education
Parental characteristics	Yes	No
Births and rel. duration	No	Yes
Contextual characteristics	Used as instruments	age, education
No of person-years	2,712	2,720
R ²	0.072	0.070
F statistic	2.82; 5.13	-
J statistic p value	0.622	-

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used

Individual characteristics: gender, age, education, race, religiosity, beauty; Parental characteristics: marital status at Wave I, mother's education, mother's age at marriage; Year dummies included

ended. As we were expecting the percentage of married ghost friends does not have any significant effect on the transition of individuals into marriage (Table 8). This robustness check is supportive of our results using current friends as the peer group of reference.

6.2 Placebo friends

A further robustness check consists of using placebo friends as the peer group of reference. Remember that in Wave III an algorithm, based on clubs and activities from previous data, was used to select 10 names of students who also attended the same school. In certain cases the respondents indicated that they did not know some of the 10 names. We define these unidentified friends as placebo friends. Note that the placebo friends could have been potentially friends with the respondent given that the 10 names were not random, but the algorithm selected them among students of the same school who were doing similar activities with the respondent. Table 9 demonstrates that the characteristics of placebo and real friends are similar.

Table 9. Real VS placebo friends' characteristics^{1,2} in 2002

Characteristic	Real friends	Placebo friends
% married	8.40	9.71
% females	54.44	60.53
Mean Age	20.63	20.72
% African American	15.94	19.49
% with college education	55.33	47.27
Religiosity (5-category scale)	2.28	2.09
Beauty (5-category scale)	3.58	3.55

¹ Individuals with non missing relationship history

² Corrected for survey design

Not surprisingly, placebo friends do not have a significant effect either (Table 10). It is thus actual peers, and not just students from the same school that do matter.

Table 10. Determinants of transition into marriage: TM=0 single, TM=1 enter marriage

Specification	2SLS	Linear Prob/FE
Definition of Peers	Placebo friends	Placebo friends
	(1)	(2)
% married peers	-0.026	-0.001
% cohabiting peers	0.042	0.019
Individual characteristics	Yes	age, education
Parental characteristics	Yes	No
Births and rel. duration	No	Yes
Contextual characteristics	Used as instruments	age, education
No of person-years	5,552	5,568
R ²	0.028	0.045
F statistic	5.50; 8.02	-
J statistic p value	0.632	-

*** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weights used
 Individual characteristics: gender, age, education, race, religiosity, beauty; Parental characteristics:
 marital status at Wave I, mother's education, mother's age at marriage; Year dummies included

7 Conclusions

The analysis so far provides with evidence for a positive and significant peer effect on the transition of singles to marriage. There does not seem to exist a peer effect on the transition into cohabitation. Increasing the proportion of married peers by 10% leads to an increase in individual's propensity to get married on the order of 0.5-1.5 percentage points. The effect is larger for girls than for boys. The fact that there is no significant effect of ghost and placebo friends indicates that real peers do matter.

We are currently constructing a monthly instead of yearly panel in order to perform the same analysis. We have already started using part of the architecture of networks by considering not just the effect nominated friends but also the effect of friends of friends. Our aim is to construct the whole network of friends and incorporate it in our analysis. We will also try to differentiate between the possible

mechanisms using information on the quality of marriages and on changes of residence. If the underlying mechanism is the transmission of information we should not observe transitions into marriage in case married friends are not satisfied by marriage. Likewise, a mechanism of leisure complementarities could be into effect only if friends live close to each other.

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9 Appendix

Variable	Type	Values
Gender	binary	$\left\{ \begin{array}{l} 0 \text{ if male} \\ 1 \text{ if female} \end{array} \right.$
Age	continuous	[18, 28]
Race	binary	$\left\{ \begin{array}{l} 0 \text{ if not African American} \\ 1 \text{ if African American} \end{array} \right.$
Education	binary	$\left\{ \begin{array}{l} 0 \text{ if highschool or less} \\ 1 \text{ if more than highschool} \end{array} \right.$
Religiosity	ordinal	$\left\{ \begin{array}{l} 1 \text{ never} \\ 2 \text{ a few times} \\ 3 \text{ several times} \\ 4 \text{ once a month} \\ 5 \text{ 2 or 3 times a month} \\ 6 \text{ once a week} \\ 7 \text{ more than once a week} \end{array} \right.$
Beauty	ordinal	$\left\{ \begin{array}{l} 1 \text{ very unattractive} \\ 2 \text{ unattractive} \\ 3 \text{ about average} \\ 4 \text{ attractive} \\ 5 \text{ very attractive} \end{array} \right.$
Contextual		average peer characteristics
Parental marital status	binary	$\left\{ \begin{array}{l} 0 \text{ if parents were married in wave I} \\ 1 \text{ otherwise} \end{array} \right.$

Mother's education	binary	$\begin{cases} 0 & \text{if highschool or less} \\ 1 & \text{if more than highschool} \end{cases}$
Mother's age at marriage	continuous	[13, 53]
Out of wedlock births	binary	$\begin{cases} 1 & \text{if birth before the 9th month of marriage} \\ 0 & \text{otherwise} \end{cases}$
Relationship duration	continuous	in months
