# Young Adults Living with their Parents and the Influence of Peers ${ }^{1}$ 

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## Preliminary

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#### Abstract

This paper focuses on the recent trends in the percentage of young adults living with their parents in the U.S. and studies the role of peers. Using data from the National Longitudinal Study of Adolescent Health (Add Health) we analyze the influence of high school friends on the coresidence of young adults with their parents. We address the challenges in the identification of peer effects in a static framework and we employ an instrumental variables estimator with state fixed effects in order to mitigate them. We then move to a dynamic framework and we exploit differences in the timing of leaving the parental home among peers. Preliminary results indicate that there are statistically significant peer effects on the nest-leaving behavior of young adults.


JEL classifications: D1, J1, J6, Z13
Keywords: peer effects, friends, living arrangements, leaving parental home

## 1 Introduction

Young adults in the U.S. used to exhibit high geographical mobility and tended to leave parental home at a relatively young age (Yi et al., 1994; Iacovou, 2002). This

[^0]behavior was in sharp contrast to young adults in Southern European countries, who in general tend to stay with their parents much longer. Indeed, there is a large literature that analyzes the late emancipation of young adults in Southern Europe and refers to its possible consequences on the labor force participation, unemployment and fertility rate (Esping-Andersen, 1999; Manacorda and Moretti, 2006; Giuliano, 2007; Chiuri and Del Boca, 2010).

However, in the last decade there has been an upward trend in the percentage of young adults living with their parents in the U.S. (Figure 1). The increase has been relatively larger for males. Leaving the parental home is the first basic geographical move from a life-course perspective and it is associated with future geographical mobility (Eurofond, 2006). Indeed, the increase in the percentage of young adults living with their parents was combined with a decrease in geographical mobility of both young females and young males in the U.S. (Figures A1 and A2 in the Appendix). The decrease was very pronounced for young adults in the age group 18-29.


Figure 1. Percentage of males and females aged 18-29 that live with their parents, 1999-2011

Moreover, a large proportion of people who has never moved out of the parental home has never changed jobs (Eurofond, 2006). The optimal matching of vacancies and workers is an important element of sustainable growth (OECD, 2005) which can be at
stake due to reduced mobility. Considering the consequences of reduced geographical mobility on growth, as well as the possible effects on fertility and female employment, an increase in the percentage of young adults living with their parents can be a concern for policy makers.

Can this increase reflect a change in marital behavior? Young males living with their parents have always exceeded young females. This is also due to differences in the age at first marriage with females typically getting married earlier than males. Indeed, the average age at first marriage has increased but has not exceeded the 29-years-old threshold in order to drive the increase in the age group of study. ${ }^{4}$

One might attribute the increase in the percentage of young adults living with their parents in the U.S. to the recent crisis that resulted in many young people being unemployed. Unemployed young adults may seek for insurance at their parental home either by not leaving it or by returning to it. In fact, Kaplan (2012) builds a structural model and shows that moving back to the parental home acts as insurance against labor market shocks. Nevertheless, the upward trend in the percentage of young females and males living with their parents has started quite a few years before the crisis as presented in Figure 1.

Housing markets can also affect the coresidence decisions of young adults. Ermisch (1999) and Martínez-Granado and Ruiz-Castillo (2002) show that housing market conditions significantly affect the living arrangements of the young in the UK and Spain respectively. Martins and Villanueva (2009) show that limited access to mortgage debt can explain why many young adults in Portugal live with their parents. The housing bubble in the U.S. might have played an important role in the last 6 years.

In this paper, we argue that peer effects might be a possible amplification mechanism behind the recent trends in living arrangements of young adults in the U.S. We focus on the age group 18-29 which has experienced the biggest decline in geographical mobility. ${ }^{5}$ Our results suggest that there is a significant positive peer effect on the living arrangements of young adults. In particular, if all the peers of a young adult still live with their parents, the individual probability of living with the parents is 10

[^1]to 20 percentage points higher than in the case that none of his/her peers live with their parents.

A growing literature documents the importance of peer decisions and peer characteristics mainly focusing on educational outcomes and health decisions. Peer group effects have been shown to be important in academic achievement (Hoxby, 2000; Sacerdote, 2001; Calvó-Armengol, Patacchini and Zenou, 2009; Boucher, Bramoullé, Djebbari, and Fortin, 2010). There is evidence that peers influence individual health decisions such as the use of drugs (Gaviria and Raphael 2001), smoking habits (Gaviria and Rafael, 2001; Powell, Tauras and Ross, 2005; Fletcher, 2010), alcohol consumption (Clark and Lohéac, 2007; Fletcher, 2011) and sex initiation (Fletcher 2007, FernándezVillaverde et al., 2010). Recent studies also provide evidence on peer influence on marital decisions (Adamopoulou, 2011), fertility (Kuziemko, 2006; Ciliberto, Miller, Nielsen, and Simonsen, 2010; Hensvik and Nillson, 2010) and the probability of finding a job (Calvó-Armengol and Jackson, 2004; Cappellari and Tatsiramos, 2011).

There is no other study, to our knowledge, that investigates peer group effects on living arrangements of young adults. One recent paper in the literature that is related to ours is Belot and Ermisch (2009) that study whether friendship ties affect geographical mobility. They develop a model of investment in friendship formation and argue that mobility can destroy friendship ties due to distance, which is costly. Using data from the British Household Panel Survey on singles aged 18-50, they show that people with more close friends are less likely to move. We focus instead only on young adults and their coresidence with parents and analyze peer effects on their nest-leaving behavior. Our results are also related to the findings of Giuliano (2007) who studies whether cultural norms matter for the living arrangements of young adults in Western Europe. Using data on the country of origin of second-generation immigrants in the U.S., she finds that in both 1970 and 2000, the living arrangements of second-generation immigrants in the U.S. are similar to the living arrangements of their respective counterparts in the country of origin. We complement her findings by showing that peers also have an impact on living arrangements of the youth. Peer effects is a different dimension of culture than the country of origin. In our analysis, which is not limited to immigrants, we control for parental and racial characteristics and we investigate this further dimension of culture based on peer interactions.

## 2 Add Health Data

The data we use in this paper brings together information on high school friends and their coresidence with parents during young adulthood from the National Longitudinal Study of Adolescent Health (hereinafter Add Health). ${ }^{6}$ Add Health is a longitudinal study of a nationally representative sample of adolescents in grades 712 (ages 11-19) in the United States during the 1994-95 school year. In Wave I the study started with an in-school questionnaire that was administered to more than 90,000 students from 80 high schools and 52 middle schools. A subsample of them (around 20,000) were also asked to complete in-home interviews and were followed in subsequent waves (II, III, and IV). The respondents answered questions about their family background, school performance, tobacco and alcohol consumption, criminal activities as well as area of residence and other coresident members of the household. In Wave I adolescents' parents were also interviewed about family and relationships, and as a result, we can obtain information on their characteristics as well. However, parents were not interviewed in the subsequent waves so it is not possible to update this information.

Wave II in-home interviews were conducted in 1996, about one year after Wave I and adolescents in grades 8-12 were interviewed. Since in Wave II more than $90 \%$ of the adolescents were still below the legal age for children to be released from parental authority, we rather focus on the living arrangements in Wave III (See Footnote 6). Wave III in-home interviews took place in years 2001 and 2002 and were completed by around 15,000 respondents aged $18-27$. We use information on the household roster in Waves I and III, and focus on those respondents who were living at least with one parent in Wave I. ${ }^{7,8}$ We then combine it with information from the household roster in Wave III and identify those that they still live with at least one parent (coresidents) and those who do not (non coresidents). The category of coresidents includes also those

[^2]that might have changed place of residence together with their parents and continued living with them in the new place of residence.

In Wave III the respondents were also asked to fill in a calendar of geographical mobility with all the states they have lived in and the month and year of the move. Unfortunately, there is no information on other coresident members in this calendar in order to be able to study the living arrangements of the respondents in each year. This limitation does not allow us to exploit the panel dimension of Add Health. Instead, we make use of the cross sectional data from Wave III and analyze the influence of friends on the living arrangements of young adults in Wave III.

Information on friendships though comes from Wave I (either from the in-home or the in-school questionaire). This is crucial for our identification strategy as it will become clear in the next session. In Wave I, data collectors assigned an identification number to each student and provided a list of all students to the respondents in order to identify their friends. Respondents were allowed to list up to five male friends and up to five female friends. On average, each respondent has nominated 6 friends. We did not require that nominations were mutual when constructing the peer group of reference for each respondent. Those that the respondent nominated as friends are likely to influence him/her even if they, in turn, did not nominate him/her as a friend. As long as nominated friends were also interviewed (i.e. they were part of the random subsample who completed the in-home survey), one can construct for each respondent a set of friends with detailed Add Health information. Given that the data represent a subsample of students within schools, not all nominated friends are interviewed and as a result, the measures of friends' characteristics will be imperfect. However, since the sampling scheme was random within grades, and most friends were in the same grade, the measures should be on average correct. On average, each respondent has 2 nominated friends who were also part of the survey. Our final sample consists of 4,058 respondents with non missing coresidence information that have at least one friend with non missing coresidence information as well. ${ }^{9}$ Table 1 shows the descriptive

[^3]statistics for those coresiding with the parents and non coresidents. ${ }^{10}$
Table 1. Descriptive Statistics by Coresidence with Parents, Working Sample

| Characteristic | Non Coresidents | Coresidents | All |
| :--- | :---: | :---: | :---: |
| \% females | 54.57 | 47.82 | 51.85 |
| Mean Age | 21.83 | 21.02 | 21.51 |
|  | $(1.78)$ | $(1.72)$ | $(1.80)$ |
| \% White | 79.20 | 70.82 | 75.83 |
| \% African-American | 10.93 | 12.25 | 11.46 |
| \% Hispanic | 6.87 | 11.09 | 8.57 |
| \% single | 56.76 | 89.26 | 69.87 |
| \% with college education | 67.65 | 64.01 | 66.18 |
| \% employed | 74.44 | 73.44 | 74.04 |
| \% good relationship with a parent in Wave I | 79.02 | 84.65 | 81.29 |
| Mean amount of housework in Wave I | 2.15 | 2.02 | 2.10 |
| (4-scale category) | $(0.85)$ | $(0.88)$ | $(0.86)$ |
| Mean parental income in Wave I | 52.35 | 46.99 | 50.16 |
| (thousand dollars) | $(51.55)$ | $(35.03)$ | $(45.60)$ |
| Mean parental education | 1.78 | 1.65 | 1.73 |
| (4-scale category) | $(0.98)$ | $(0.99)$ | $(0.99)$ |
| \% | 59.66 | 40.34 |  |
| Number of obs. | 2352 | 1706 | 4058 |

Notes: Standard errors in parenthesis. The sample includes young adults who were living with at least one
parent in Wave I, with non missing own and high school friends' coresidence information.

Corrected for the design effects of the Add Health sampling process.
In line with findings from earlier studies Table 1 shows that, compared to non coresidents, coresidents are mostly men, single, and younger in age. Moreover, coresidents are more likely to be Hispanic or African American, without college education, and not employed. It is well documented that women stop living with their parents earlier than men. This is due to differences in the age at marriage but also due to gender differences in the relationship between the parents and the child (Goldscheider and

[^4]DaVanzo, 1985). Since daughters are commonly monitored by parents more than sons (Ward and Spitze, 1992) and they are expected to do more housework (White, 1994), living with parents after age 18 may be less beneficial for daughters than sons (Goldscheider and Waite, 1991). In terms of racial or ethnical differences, African Americans and Hispanics are substantially more likely than non-Hispanic whites to live in extended families (Beck and Beck, 1984). Lastly, in accordance with Rosenzweig and Wolpin (1993), non coresidents come from relatively richer and more educated families than coresidents. The descriptive statistics of the individuals in our final sample are similar to the ones of all the individuals interviewed in Wave III, ensuring that the final sample is still representative (Table A1).

## 3 Peer Group Effects on Living with the Parents

To determine the peer group effects on young adults' coresidence with the parents, our benchmark regression is as follows:

$$
l_{i s}=\overbrace{\overline{l_{i s}}}^{\begin{array}{c}
\text { endogenous }  \tag{1}\\
\text { effects }
\end{array}}+\underbrace{\underbrace{n}_{j=1}}_{\sum_{\text {individual char. }}^{\sum_{m=1}^{M} \beta_{m} x_{i s}^{m}}+\underbrace{\frac{1}{g_{i}} \sum_{m=1}^{M} \sum_{j=1}^{n} \theta_{m} g_{i j} x_{j s}^{m}}_{\begin{array}{c}
\text { average peer char. } \\
\text { (gender, age, etc) }
\end{array}}+\alpha_{s}+\varepsilon_{i s} .}
$$

where $l_{i s}$ is a binary variable that takes the value 0 if someone who was living with at least one parent in Wave I is not living with any parent in Wave III, and the value 1 if he continues living with at least one parent in Wave III, $\bar{l}_{\text {is }}$ is the percentage of peers living with their parents, $\gamma$ is the coefficient of interest, i.e. the peer effect that we are trying to estimate, $x_{i t}^{m}$ are the individual characteristics of the respondents including $m$ variables that are known as determinants of living arrangements by earlier studies. These variables include gender, age, race, marital status, employment status, college attainment, amount of housework used to do in Wave I, how good was the relationship with the parents, parental income and education. ${ }^{11}$ Finally, we also include state dummies, $\alpha_{s}$.

[^5]
### 3.1 Identifying the Peer Group Effects on Living with the Parents

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 group effect that we are interested in. ii) Contextual effects; the behavior of the individual is influenced by the characteristics of the group. iii) Correlated effects; the individual and the group behave in the same way due to similar environments that are unobserved or due to endogenous friendship formation/sorting. This arises either from the fact that both the individual and her friends are subject to common unobserved shocks, due to institutional environments or because the individual selects friends who are similar to her.

Manski (1993) shows that identifying the endogenous and the contextual effects separately in a reduced form linear model is not possible. This is called the reflection problem and it is due to the fact that by definition group behavior is the aggregation of individual behavior. Solutions that have been proposed in order to solve the reflection problem consist of using instrumental variables techniques, or using panel data (see Bramoullé, Djebbari, and Fortin, 2009; Boucher et al., 2010). Instruments are used in order to generate variation in peer behavior that is independent from individual behavior. Examples of identification strategies with instrumental variables include Ciliberto et al. (2010) that use the fertility of the siblings of one's colleagues as an instrument for the fertility of one's colleagues, and Fletscher (2011) that uses the alcohol consumption of the parents of one's classmates as an instrument for the alcohol consumption of one's classmates. The basic idea is that siblings or parents of peers affect the behavior of the peers but have no independent effect on the respondent's behavior. De Giorgi, Pellizzari, and Redaelli (2010), and Pattachini and Zenou (2011) exploit the information about the whole network of friendships and instrument the behavior of the respondent's friends with the characteristics of friends of friends who are not directly linked with the respondent.

We instrument the percentage of peers living with parents using the contextual variables. We hence assume that there is no direct effect of friends' characteristics on respondents' decisions ( $\theta_{m}=0$ ) and use friends' characteristics as instruments for
their living arrangements. This procedure is common in the literature (e.g. Gaviria and Raphael, 2001; Powell et al., 2005).

What about correlated effects? One might worry that people make new friends as they get older. Hence, it is normal for people who live without their parents to make new friends who are also similarly behaved. In this case endogeneity would be a serious problem in identifying the peer effects. In the current analysis we consider friends since high school. This solves part of the endogenous friendship formation in later years. Moreover, it is not very likely that adolescents selected friends in high school according to characteristics that determined their living arrangements afterwards. We use Wave I State-level fixed effects in order to overcome the endogeneity of the state of residence in Wave I. In this way we also control for unobserved state-level characteristics, e.g. welfare policies, mobility promoting programs, availability of college etc, that could jointly affect the living arrangements of the respondents and their peers. ${ }^{12}$

### 3.2 Wave I In-Home Nominations ${ }^{13}$

### 3.2.1 Static models

We first examine the determinants of living arrangements in Wave III using the friends nominations from Wave I. Here, we assume that friendships have lasted after high school up to Wave III (i.e. for 7 years). The dependent variable takes the value 0 if someone who was living with at least one parent in Wave I is not living with any parent in Wave III, and the value 1 if he continues living with at least one parent in Wave III. The variable of interest is the ratio of each individual's friends that live with their parents. We include as regressors the characteristics of the individuals, such as age, gender, race, marital status, employment status, college attainment, amount of housework used to do in Wave I, how good was the relationship with the parents, maternal income and education. All variables are explained in the appendix.

We start with a simple linear probability model (Table 1, column 1) and we find

[^6]a statistcally significant peer effect. ${ }^{14}$ However, the results of a simple OLS without fixed effects might suffer from the identification problems that we discussed above. We therefore perform 2SLS in a linear probability model using the contextual variables as instruments and including Wave I State fixed effects (Table 1, column 2). ${ }^{15}$ We assume that the contextual variables do not have any effect on individual behavior, i.e. $\theta_{m}=0$ and we exclude them from the regression. Instead, we use these contextual variables as an instrument for the percentage of peers who live with their parents in Wave III.

Table 2. Determinants of living arrangements in Wave III, static model

| Definition of Peers | Nominated friends | Nominated friends |
| :--- | :---: | :---: |
|  | $(1)$ | $(2)$ |
| Specification | OLS | 2 SLS |
| \% peers living with parents | $0.072^{* *}$ | $0.148^{*}$ |
|  | $(0.029)$ | $(0.085)$ |
| Individual char. | Yes | Yes |
| Parental char. | Yes | Yes |
| Contextual char. | No | Used as instruments |
| Wave I State fixed eff. | No | Yes |
| No of observations | 2,872 | 2,432 |
| $R^{2}$ | 0.191 | 0.155 |
| F-statistic 1st stage | - | 36.15 |
| J statistic p-value | - | 0.373 |
| $* * *$ p $<0.01,{ }^{* *}$ p $<0.05,{ }^{*}$ p $<0.1$ (robust s.e. clustered at school level), cross sectional weight used |  |  |
| Control variables: age, gender, race, marital status, employment status, college attainment, amount |  |  |
| of housework used to do in Wave I, how good was the relationship with the parents in Wave I, |  |  |
| maternal income and education |  |  |

The F statistic of the excluded instruments in the 1st stage is larger than 10 indicating that the instruments are not weak. The Hansen J statistic does not reject

[^7]the hypothesis of the validity of the instruments. There is a statistically significant positive peer effect. In particular, if the percentage of peers living with their parents increases by $10 \%$, the individual probability of living with the parents will increase by 1.48 percentage points. In other words, the probability that a young adult lives with the parents if all his/her nominated friends live with their parents (\% peers living with parents $=100$ ) is 14.8 percentage points higher than in the case that he/she does not have any nominated friend living with the parents (\% peers living with parents=0).

### 3.2.2 Some dynamics

As we mentioned when describing the data, the respondents in Wave III filled in a calendar of geographical mobility. This calendar contains information about all the states that the respondent has lived in during his life, the year and month of the move to each state and to the current address. However, there is no information on other coresiding members so as to know whether the respondent moved together with the parents or no. In order to make use of the dynamic component of the data we assume for those respondents who were not living with the parents in Wave III that the date they moved out of the parental home coincides with the date of the move to the current address. Actually, $71.51 \%$ of the respondents moved to the current address in the last 3 years, i.e. between 1999 and 2001, when they were on average 20.75 years old. This is very similar to the age by which $50 \%$ of young adults have left parental home in the U.S. (Iacovou, 2002).

In this framework we can exploit differences in the timing of the move in order to achieve identification. In particular, using information on the month and year that people moved to the current address, we focus on nominated friends that moved out of the parental home before the respondent. The living arrangements of these friends are already determined at the time that we observe the behavior of the respondent. In this way, the reflection problem is mitigated without the use of instruments. Table 3, column 1 presents the results of the OLS regression of this dynamic model, which are also in line with the estimates of the static model.

Table 3. Determinants of living arrangements in Wave III, dynamic model


### 3.3 Same grade students living in the same block in Wave I

In this section, as a robustness check, we define an alternative group of peers. Given that we study mobility decisions, defining the peer group of reference using the residential proximity in Wave I can also be of relevance. Hence, instead of using the friends that the respondents nominated in Wave I we define the peer group of reference for each respondent as the students who were enrolled in the same grade (but potentially in different schools) and lived in the same block as the respondent in Wave I. This peer group of reference is a combination of neighbors-grademates and it is particularly relevant in this setting. Furthermore, defining the peer group of reference in this way allows us to overcome possible concerns regarding selection and endogenous friendship formation. We perform 2SLS using the contextual characteristics as an instrument (Table 4, column 1). The results of this estimation are comparable with the results presented in Table 2, column 1.

Table 4. Determinants of living arrangements in Wave III, different peer group

| Definition of Peers | Students from the same grade |  |
| :--- | :---: | :---: |
| who lived at the same block in Wave I |  |  |
| Specification | $(1)$ | $(2)$ |
| \% peers living with parents | 2 SLS | 2 SLS |
|  | $0.175^{*}$ | $0.197^{*}$ |
| Individual char. | $(0.104)$ | $(0.108)$ |
| Parental char. | Yes | Yes |
| Contextual char. | Yes | Yes |
| Wave I State fixed eff. | Yes as instruments |  |
| Wave I Grade fixed eff. | No | Yes |
| No of observations | 3,033 | Yes |
| $R^{2}$ | 0.207 | 3,033 |
| F-statistic 1st stage | 26.26 | 0.173 |
| J statistic p-value | 0.501 | 22.60 |
| *** p<0.01, ** p<0.05, * p<0.1 (robust s.e. clustered at school level), cross sectional weight used |  |  |
| Control variables: age, gender, race, marital status, employment status, college attainment, amount |  |  |
| of housework used to do in Wave I, how good was the relationship with the parents in Wave I, |  |  |
| maternal income and education |  | 0.579 |

As Table 4 shows, the peer effect is again positive and significant. In this case, the probability that a young adult lives with the parents if all his/her neighbors-grademates live with their parents (\% peers living with parents=100) is around 18 percentage points higher than a young adult who does not have any neighbors-grademates living with the parents (\% peers living with parents=0). In the last specification we also add grade fixed effects on top of state fixed effects in order to capture unobserved cohort shocks (Table 4, column 2). The results are robust.

## 4 Conclusions

Decreased geographical mobility of young adults can have several consequences on unemployment and growth. We study the recent increase in the percentage of young
adults living with their parents in the U.S. which might be associated with the decrease in their mobility. We use data on high school friends and we make use of instruments and State fixed effects in order to mitigate the problems of identification. We find that peers play an important role in determining the living arrangements of young adults in the U.S. In particular, a $10 \%$ increase in the proportion of peers living with their parents will lead to an increase of around 1 to 2 percentage points in the individual probability of living with the parents. Policy makers should take this peer effect into account when evaluating policies that are intended to boost youth emancipation or mobility.

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## 5 Appendix



Figure A1. Percentage of movers ${ }^{16}$ by age group, 1999-2011

[^8]

Data Source: Current Population Survey Data on Geographical Mobility/Migration
(http://www.census.gov/hhes/migration/data/cps.html)
Figure A2. Percentage of movers aged 18-29, by gender, 1999-2011

$\rightarrow$ In-home friend nomination

- Nominated friend, in-home interview
- Nominated friend, no in home interview

Figure A3. In-home nominations and in-home interviews


Figure A4. In-school nominations and in-home interviews

Table A.1. Descriptive Statistics, Full Sample

| Characteristic | All |
| :--- | :---: |
| \% females | 49.21 |
| Mean Age | 21.82 |
|  | $(1.87)$ |
| \% White | 68.01 |
| \% African-American | 15.88 |
| \% Hispanic | 11.94 |
| \% single | 66.76 |
| \% with college education | 57.35 |
| \% employed | 74.36 |
| \% good relationship with a parent in Wave I | 80.16 |
| Mean amount of housework in Wave I | 2.04 |
| (4-scale category) | $(0.89)$ |
| Mean parental income in Wave I | 45.74 |
| (thousand dollars) | $(45.17)$ |
| Mean parental education | 1.58 |
| (4-scale category) | $(1.01)$ |
| \% |  |
| Number of obs. | 14322 |
| Notes: Standard errors in paranthesis. Sample based on Wave III of Add Health. |  |
| Corrected for the design effects of the Add Health sampling process. |  |
| The target population for this sample is comprised of young adults in 2001, who were |  |
| enrolled in US schools during the 1994-1995 academic year for the specified grades. |  |

Table A2. Definition of Variables

| Variable | Type | Values |
| :---: | :---: | :---: |
| Gender | binary | $\left\{\begin{array}{l}0 \text { if male } \\ 1 \text { if female }\end{array}\right.$ |
| Age | continuous | [18, 28] |
| Hispanic | binary | $\left\{\begin{array}{l}0 \text { if not Hispanic } \\ 1 \text { if Hispanic }\end{array}\right.$ |
| African American | binary | $\left\{\begin{array}{l}0 \text { if not African American } \\ 1 \text { if African American }\end{array}\right.$ |
| Single | binary | $\left\{\begin{array}{l}0 \text { if married or cohabiting } \\ 1 \text { if single }\end{array}\right.$ |
| College | binary | $\left\{\begin{array}{l}0 \text { if no college } \\ 1 \text { if completed college or currently in college }\end{array}\right.$ |
| Employed | binary | $\left\{\begin{array}{l}0 \text { if not employed } \\ 1 \text { if employed }\end{array}\right.$ |
| Well parent in Wave I | binary | $\left\{\begin{array}{l}0 \text { if bad relationship with both parents in wave I } \\ 1 \text { if good relationship with one parent in wave I }\end{array}\right.$ |
| Housework in Wave I | ordinal | $\left\{\begin{array}{l}0 \text { not at all } \\ 111 \text { or } 2 \text { times per week } \\ 22 \text { or } 3 \text { times per week } \\ 35 \text { or more times per week }\end{array}\right.$ |

[^9]Parental education $\quad$ ordinal $\left\{\begin{array}{l}0 \text { Less than highschool } \\ 1 \text { Highschool or similar } \\ 2 \text { More than highschool } \\ 3 \text { College or more }\end{array}\right.$


[^0]:    ${ }^{1}$ We are grateful to Nezih Guner for his valuable advice and guidance. Many thanks to David Card, Ana Rute Cardoso, Francesco Fasani, Lidía Farré, and Joan Llull for useful suggestions. All the remaining errors are ours.
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[^1]:    ${ }^{4}$ According to the U.S. Census Bureau, in 2008 the average age at first marriage was 27.6 for males and 25.9 for females.
    ${ }^{5}$ We consider youth older than 18 , since this is the legal age for children to be released from parental authority in almost all states in the U.S. (Source: http://www.law.cornell.edu/ wex/table_emancipation)

[^2]:    ${ }^{6}$ This 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).
    ${ }^{7}$ We treat a young adult as coresident with a parent if at least one of the household members is identified as either father, mother's husband, mother's partner, mother, father's wife or father's partner. Mother and/or father can be biological, step, adoptive or foster.
    ${ }^{8}$ More than 94 percent of the adolescents in Wave I were living with at least one parent.

[^3]:    ${ }^{9}$ In our setting, information on friends of friends is very limited as we need information for both the respondents and their friends in Wave III. Hence, it is necessary that they have all completed inhome interviews. As Figure A3 shows in the Appendix, when using in-home nominations, nominated friends who did not complete in-home interviews were not able to nominate anyone. This is not the case when we use in-school nominations (Figure A4). However, this information on friends of friends is irrelevant given that the behavior of friends that we would like to instrument is still missing.

[^4]:    ${ }^{10}$ For the description of variables see Table A. 2 in the Appendix.

[^5]:    ${ }^{11}$ For the description of variables see Table A. 2 in the Appendix.

[^6]:    ${ }^{12}$ Since the nominated friends are not necessarily living in the same block, tract or county, we control for state fixed effects to overcome the problem that may arise due to correlated effects.
    ${ }^{13}$ The respondents were asked to nominate their best friends both in the in-school and in the in-home interview. We present the results using the in-home nominations given that the presence of other students in the school might have influenced the in-school nominations of the respondent. Nevertheless, we also estimated all the specifications using the in-school nominations and the results were very similar.

[^7]:    ${ }^{14}$ We also calculated marginal effects for a logit estimation as a consistency check. Both the magnitude and significance of the coefficients remained unchanged.
    ${ }^{15} \mathrm{We}$ omit the contextual variables that are very correlated with individual characteristics, i.e., those related to race, age and gender.

[^8]:    ${ }^{16}$ The population is classified according to mobility status by the U.S. Census Bureau on the basis of a comparison between the place of residence of each individual to the time of the March survey and the place of residence one year earlier. All people who were living in a different house at the end of the period rather than at the beginning are classified as movers.

[^9]:    Total household income in Wave I continuous in thousand \$

