Journal of Housing Economics 34 (2016) 69–81

Contents lists available at ScienceDirect

Journal of Housing Economics

journal homepage: www.elsevier.com/locate/jhec

Residential choices of young Americans☆

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ARTICLE INFO

Article history:
Received 16 September 2015
Revised 8 June 2016
Accepted 24 August 2016
Available online 29 August 2016

JEL classification:
A14
C21
D85
R21
Z13

Keywords:
Living arrangements
Social networks
Endogenous network formation
Spatial autoregressive model
Control function approach
Bayesian estimation
Social multiplier

ABSTRACT

Using detailed data on a cohort of young Americans who were in their late twenties and early thirties in 2008, we investigate the importance of forces different from economic incentives in nest-leaving decisions. We apply recent methods from social network econometrics to identify the importance of peers net of **c**onfounding factors. For the entire sample, our findings reveal no evidence of peer effects. Indicators of parenting and the social structure of families appear to be the major factors in the decisions to coreside with parents. However, for those who moved back home after a few years of living alone, we find strong peer effects. These findings are consistent with theories of social influences in peer groups in which peers play a critical role for individuals with time-inconsistent preferences.

1. Introduction

Since 2007, the share of young adults aged 18–29 living with their parents has been growing steadily in the United States.[1] Although the dynamics differed by gender and race, the increasing trend was a common factor.

Understanding the reasons why young adults remain at their parents' home is of primary policy concern, since the living arrangements of young adults are closely related to fertility, mobility, and labor market outcomes, and hence are related to economic growth. The rising number of young Americans living with their parents in recent years has been attributed to the lower employment prospects and lower wages in the years surrounding the Great Recession.[2,3]

The marked heterogeneity of young adults' decisions within gender, race, household income and marital status categories, however, suggests that other forces such as differences in attitudes in family environments and peer pressure may be at work.[4] Although

☆ We thank Angela Cools for excellent research assistance.

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[1] According to the U.S Census Bureau, between 2007 and 2011, the number of young adults living at home rose from 4.7 million to 5.9 million.

[2] See, e.g. Dyrda et al. (2012) and the references therein. Kaplan (2012) builds a structural model and shows that moving back to the parental home acts as insurance against labor market shocks.

[3] Even before the start of the latest recession, employment prospects and associated wages were on the decline for young adults in North America, especially for men.

[4] There is a long-standing economic literature on the importance of demographic and economic factors for residential choices, which is particularly florid for Southern European countries where youths remain at their parents home longer that their counterparts in Scandinavian Europe, the United Kingdom and the United States. See Kiernan (1986) for an international comparison of young adults' living arrangements in Denmark, Great Britain, and the United States; Yi et al. (1994) for a comparison of age-specific net rates of leaving home for men and women in China, Japan, South Korea, the United States, Sweden and France; and Iacovou (2002) for living arrangements of young adults in Europe and the United States. See

http://dx.doi.org/10.1016/j.jhe.2016.08.003
1051-1377/

peer effects have been shown to be important determinants of behavior in a variety of contexts, the housing market is a notable exception.[5] The existing studies on the importance of social interactions in this area of research are extremely limited (see Ioannides (2012) for a critical survey).[6]

This paper contributes to this literature. It does so by providing estimates based on novel data and obtained using the most recent econometrics techniques that control for network endogeneity. In fact, the most challenging issue faced by all studies using social network data to identify peer effects is that individuals sort into groups in a non-random way. If the variables that drive this process of selection are not fully observable by the researcher, then potential correlations between (unobserved) group-specific factors and the target regressors are a major sources of bias. To address this issue, most of the existing papers (see, in particular, Bramoullé et al. (2009); Calvó-Armengol et al. (2009); Lin (2010); Lee et al. (2010)) use the architecture of the networks by introducing *network fixed effects* in the econometric equation. The underlying assumption is that the unobservable factors that drive friendship formation are common to all individuals belonging to the same network. This means that it is assumed that the structure of interactions is (conditionally) exogenous. However, if there are individual-level unobservables that drive both network formation and outcome choices, this strategy will not work.[7] Because of a failure to account for similarities in unobserved characteristics, similar behaviors might mistakenly be attributed to peer influence when they are simply due to similar unobserved characteristics.

In this paper, we explicitly model network formation and estimate a model of link formation and outcomes using a Bayesian approach.[8] By doing so, we account for the possible presence of unobservable individual characteristics affecting both network formation and outcome decisions. The importance of this methodological innovation is confirmed by the fact that the results are dramatically different when we account for network formation.

We use data from the U.S. National Longitudinal Survey of Adolescent Health (AddHealth). This data contains unique information on parents and friends during adolescence for a cohort of young adults who were in their late twenties and early thirties in 2008. This cohort has been followed through the transition into young adulthood with four in-home interviews. The most recent was in 2008, when respondents were 24–34 years old. We use Wave I data (i.e. when individuals were aged 11–21) to obtain a detailed picture of the family and social environments during adolescence. Since the median age of leaving the parental home is around 21–22 for females and 22–24 for males (see, e.g., Iacovou (2002)), we then use the follow-up data in 2002–2003 (i.e. at Wave III when individuals were aged 18–28) to derive information on nest-leaving decisions. In our sample, about 14,000 students are coresidents with parents in Wave I and about half of them leave the nest in Wave III (excluding homeless and those with missing values). Using the information at Wave IV, we can also identify a small sample of non-coresident individuals who moved back home. This sample consists of slightly fewer than 600 individuals. Particularly important for our study is that the richness of the AddHealth information provides us with a set of "nonstandard" variables to account for the heterogeneity of our sample in terms of parenting and the social structure of the families.

Once we control for unobserved factors driving friendship choices, our findings reveal no effect of peers' behavior on individual behavior for the entire sample. Outside of economic incentives, own family experiences (most notably the quality of parenting and the social structure of families) are the major driving factors. When we restrict our attention to individuals who moved back home, our analysis reveals strong peer effects. These findings are consistent with the view that the peer influence is crucial in shaping behavior for people with problems of self-control and time-inconsistent preferences (see, e.g. Battaglini et al. (2005)). Nest-leaving behavior does not seem to be an exception.

Adamopoulou and Kaya (2013) find evidence of peer effects in nest-leaving decisions using the same data source (AddHealth). However, they extract different information from the dataset[9] and do not account for endogeneity of friendship formation. In addition, they do not consider the sub-sample of boomerang kids.

The paper unfolds as follows. In the next section, we describe our data and empirical strategy. In Section 3, we present our empirical results and robustness checks. In Section 4, we conclude.

2. Data

Our data source is the National Longitudinal Survey of Adolescent Health (AddHealth), which is a nationally representative survey of more than 90,000 adolescents that began with in-school questionnaires administered to U.S. adolescents in grades 7–12 in 1994–1995.[10] The *in-school survey*contains questions on respondents' demographic and behavioral characteristics, education, family background and friendship. Importantly for the purpose of this paper, this survey also contains unique information on friendship relationships. The friendship information is based upon actual friends' nominations. Pupils were asked to identify their best friends from a school roster (up to five males and five females).[11] The uniqueness of this information lies in the fact that, by matching the identification numbers of the friendship nominations to respondents' identification numbers, one can obtain information on the characteristics of nominated friends.[12] A subsample of these adolescents (around 20,000) were also asked to complete in-home interviews and were followed in three subsequent waves. The *in-home survey* contains questions relating to more sensitive individual and household information. The household roster at Wave I allows us to identify the other coresident members of the households and subsequent questions in the follow-up waves allows us to identify precisely who moved out and back in through ages 24–32. At Wave I, we define an individual as a coresident if at

Manacorda and Moretti (2006), Giuliano (2007), and Chiuri and Del Boca (2010)) for the possible consequences of late emancipation of young adults in Southern Europe on their labor market outcomes and on fertility rates.

[5] Examples include education, crime, labor market, fertility, obesity, productivity, participation in welfare programs, risky behavior (for surveys, see Glaeser and Scheinkman (2001); Moffitt (2001); Durlauf (2004); Ioannides and Loury (2004); Jackson (2009); Ioannides (2012)).

[6] A recent contribution is Patacchini and Zenou (2016).

[7] For a general discussion and overview on these issues, see Blume et al. (2011), Goldsmith-Pinkham and Imbens (2013), Graham (2015), and Jackson et al. (2015).

[8] A similar modeling approach is used by Goldsmith-Pinkham and Imbens (2013) and Hsieh and Lee (2016).

[9] See footnote 14.

[10] This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (http://www.cpc.unc.edu/addhealth). No direct support was received from grant P01-HD31921 for this analysis.

[11] The limit in the number of nominations is not binding, not even by gender. Less than 1% of the students in our sample list ten best friends, less than 3% list five males and roughly 4% list five females.

[12] The other existing survey data collecting information on social contacts (e.g. NSHAP, BHPS, GSOEP) are "ego networks". They contain a list of the contacts each respondent declares with few demographic characteristics (gender, relationship with respondent, education) of each contact, which are self-reported by the respondent. No extensive interview with each nominated contact is performed.