LIVING ARRANGEMENTS IN WESTERN EUROPE: DOES CULTURAL ORIGIN MATTER?

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Abstract
Conventional economic analyses have not been successful in explaining differences in living arrangements and particularly the dramatic increase in the fraction of young adults living with their parents in Mediterranean Europe. This paper presents a cultural interpretation. I argue that the sexual revolution of the 1970s—by liberalizing parental attitudes—had a differential impact on living arrangements in Northern and Southern Europe on account of the closer parent–child ties in Southern Europe. Such an interpretation can easily explain both the shift in living arrangements over time and also observed North–South differentials. It receives support from data on the living arrangements of second-generation immigrants in the United States, both in 1970 and 2000. This duplication of the European pattern in a neutral environment, with the same unemployment benefits, the same welfare code, and the same macroeconomic conditions suggests a major role for culture in determining living arrangements. (JEL: D1, J1, Z13)

1. Introduction

Over the past 30 years Mediterranean Europe has witnessed a dramatic increase in the fraction of young adults living with their parents. In the early 1970s, the

fraction living at home was low across all Western European countries. Today, well over half of all young adults (18–33 years old) live with their parents in Greece, Italy, Portugal, and Spain. In contrast, "stay-at-homes" make up less than 30% in the United Kingdom, France, Germany, the Scandinavian countries, and the United States. The reason Southern Europeans[1] remain at their parents' home is of primary policy concern, because this postponement of adult life may critically affect the youth labor supply, the overall fertility level, and the European pay-as-you-go pension systems.[2]

Why do Mediterranean youths continue to live with their parents while their counterparts in Scandinavian Europe, the United States, and the United Kingdom do not? A variety of explanations have been suggested in the literature, from high costs of housing and poor employment possibilities (Ghidoni 2001; Martinez-Granado and Ruiz-Castillo 2002; Giannelli and Monfardini 2003), to family policies such as maternity leave and child benefits (Neyer 2003). Another interpretation cites high job security,[3] whereas Manacorda and Moretti (2006) argue that a rise in parents' income allowed them to offer their children higher consumption in exchange for their presence at home.

This paper presents a cultural interpretation for the dramatic increase in the fraction of young adults staying at home. I argue that family structure, interacting with the sexual revolution, played an important role. As a result of the sexual revolution, young people in close-knit, Southern European families have been able to obtain their sexual independence at home and still take advantage of the benefits of living with their parents. The social norm in Southern Europe had always been to leave home for marriage. In the 1970s, when the family was more traditional and strict, youths could reach sexual independence only after they moved out of the house. The new liberal parenting attitude, most likely ushered in by the sexual revolution, has favored a longer life in the parental household: Mediterranean youths are now happier living at home and postponing their marriage decisions. On the other hand, in Northern Europe, where the cultural norm has always been individualism and the independence of the generations, youths continue to leave home early, notwithstanding the emergence of a more liberal family structure. As a consequence, the sexual revolution had a negligible impact on the living

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1. Southern Europe and Mediterranean Europe are used interchangeably to refer to Greece, Italy, Portugal, and Spain.

2. Bentolila and Ichino (2001) find that the consumption losses after the termination of a job are much lower in Mediterranean Europe, due to strong family ties.

3. Becker, Bentolilla, Fernandes, and Ichino (2002) find that children whose father is unemployed are more likely to live independently. In a similar vein, Fogli (2000) shows that children remain with their parents to enjoy household consumption (a public good) and thereby they avoid the credit constraints they would face if they lived alone and went out to work. This is viable because their parents' jobs are secure due to extensive labor market regulations.

arrangements of Northern European families; youths never wanted to live with their parents anyway.[4]

Because cultural norms, economic conditions, and institutions are country-specific, cross-country differences within Europe cannot be exploited to properly identify the relative importance of this culture hypothesis from more traditional economic explanations. In order to make the culture identification, I look at the living arrangements of second-generation immigrants in the United States. If cultural norms are persistent, then living arrangements of immigrants to the United States should parallel their counterparts in the home country. In fact, the United States provides an ideal context for testing this cultural hypothesis because it contains immigrants from all of the Northern and Southern European countries. Moreover, other likely determinants of living arrangement such as labor, housing market conditions, and welfare programs can be held constant across different immigrant groups. I test the culture hypothesis in two ways. First, I use dummy variables for the immigrants' country of origin as a proxy for culture to predict the fraction of adult youths living with their parents. These dummy coefficients measure the extent to which people from immigrant families differ from natives and from one another, and allow a test of whether cultural differences affect living arrangements. Furthermore, I complement this analysis by directly correlating living arrangements in the country of origin—a variable that should reflect the cultural norm of immigrants with respect to family arrangements—with the living arrangements of their U.S. immigrant counterparts.

The empirical analysis shows that, in both 1970 and 2000, the U.S. living arrangements of second-generation immigrants mimic the living arrangements of their respective counterparts in Europe. Moreover, the evolution of living arrangements in the United States over this time period follows a similar pattern to the evolution of such a behavior in the original countries. Only 23% of U.S. natives lived with their parents in 1970, and this percentage rose only slightly, to 27%, by 2000. A similar pattern is observed for the United Kingdom (from 21% to 22%) and for Scandinavian nations (from 15% to 18%). However, this proportion increased dramatically for all second-generation Southern European immigrants. Particularly, it went from 25% to 61% in Portuguese immigrants,

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4. The sexual revolution was a drastic relaxation in general standards of sexual behavior. On the one hand, it was a technological shock, associated with the introduction of "the pill" and the legalization of abortion. The pill arrived in Europe in the mid-1960s, but it was 5–10 years later before it was widely diffused (for example, it arrived in 1965 in Italy, but it was not until 1976 that it was widely available). Abortion was legalized in the mid-1970s to mid-1980s (1973 in Sweden, 1975 in France, 1976 in Germany, 1978 in Italy and Greece, 1981 in the Netherlands and 1985 in Spain), with the exception of the United Kingdom (1967) and some countries that have never legalized it (Portugal and Ireland). On the other hand, the sexual revolution brought about a change in attitudes toward sexual behavior. That said, "it is clear that attitudes towards sexual behavior did not change radically for the vast majority of men and women immediately, but only a generation after the 'revolution' had begun" (David 1999). This change in attitudes toward sexual behavior is the focus of this paper. See also Akerlof, Yellen, and Katz (1996) and Goldin and Katz (2000, 2002) for other examples of an economic impact of the sexual revolution.

from 24% to 44% in Italian immigrants, from 23% to 42% in Greek immigrants, and from 20% to 40% in Spanish immigrants. The respective numbers for immigrants from France, Germany, and the Netherlands lie somewhere between these extremes.

Given that this paper proposes an interpretation for the current pattern of living arrangements based on a delay of marriage, any alternative explanation leading to a delay of marriage could have the same effect on living arrangements in countries with strong family ties. To address this concern, I analyze two alternative channels by which the desired marriage age could have changed: a worldwide increase in housing prices and increases in female labor force participation rates.

Antecol (2000), Carroll, Rhee, and Rhee (1994), and Fernandez and Fogli (2005) also look at the behavior of immigrants in the United States to study the importance of culture in the determination of economic outcomes. Antecol uses labor force participation in the country of origin to study labor market outcomes of immigrants in the U.S. She finds evidence that culture plays an important role in the determination of the gender gap in labor force participation. She studies first-generation immigrants and also pools together second and higher generations, finding a stronger effect of culture for first-generation immigrants. Looking at first-generation immigrants in the United States, Carroll, Rhee, and Rhee find no significant impact of culture on saving decisions. Fernandez and Fogli show that culture matters for female labor force participation and fertility. The authors study the behavior of second-generation immigrants in the United States, using as proxies for culture past female labor force participation and total fertility rates from the immigrants' countries of origin.

The rest of the paper is organized as follows. Section 2 gives a historical perspective on cultural differences in family structures. Section 3 derives the empirical estimation equation and presents the empirical results. Section 4 provides further discussion. Section 5 concludes.

2. Differences in Family Structures

Differences in family structures in Western Europe have been studied extensively by Reher (1998). According to this author, at the European level, there are considerable differences in terms of family ties between Northern and Southern European countries. The latter are grouped together as "strong family countries" and contrasted with the "weak family countries" of Northern Europe and North America.[5] "The strength or weakness refers to cultural patterns of family loyalties,

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5. The weak–strong dichotomy is associated with a north–south gradient, with the Scandinavian countries generally having the weakest family ties, the Mediterranean countries the strongest, and the

allegiances, and authority but also to demographic patterns of coresidence with adult children and older family members and to organizing support for the latter" (p. 206).

In Northern Europe and the United States, the cultural norm for young adults is to leave their parents' home before marriage; in Mediterranean Europe it is to leave only for marriage. These divergent practices appear to have deep historical roots. From at least the Middle Ages until the beginning of the nineteenth century, it was common for young adults in England to leave the parental households for a prolonged period before marriage. There is also important evidence of a similar practice in Northern Europe (Mitterauer and Sieder 1977).[6] English and Northern European marriage customs contrasted with those in Mediterranean Europe, where leaving home before marriage was unacceptable and meant that the ties to the parental household were severed. Differences between ethnic groups in such patterns have also appeared in other historical contexts. In her study of New York State families during the 1920s, Weiler (1986) found that "the immigrants from Southern Europe stressed the value of children as insurance in old age, whereas Americans and Western Europeans valued individualism and independence between generations" (p. 84).

These differences in marriage customs in the regions of Europe, related to the strength of family ties between generations, never disappeared and are part of the cultural heritage of those countries. What changed between the period prior to the sexual revolution and today is a substantial delay in marriage for the Southern European group. The possibility offered in recent years to combine the advantages of living with parents with a full sexual life has favored, in societies with strong family links, a longer life in the family (Bettio and Villa 1998). This hypothesis is explored in this paper.

2.1. Youths Living with Their Parents: The Italian Case

This section presents some empirical evidence supporting the hypothesis that the increased autonomy of children enjoyed at their parents' home indeed plays an important role in determining living arrangements.

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other continental countries lying somewhere in between. The distinction between strong and weak family ties does not include the countries of Eastern Europe, which have a completely different system in terms of marriage regimes, demographic structures, and family systems (Hajnal 1965).

6. Reher attributes this pattern to the large number of servants in Northern Europe and England. Data taken from numerous local studies shows that before the mid-nineteenth-century servants were generally between two and four times more numerous in Northern European societies than in Southern Europe. On the whole, between 50% and 80% of young people spent some of their young lives as servants before marriage in weak-family areas of Europe, as opposed to 15–30% in strong-family areas of the south. For most people in Southern Europe, then, the permanent departure of young adults from home came only with marriage, whereas in England and Northern Europe marriage took place after several years away from home.

I used a telephone survey from the Institute for Population Research in Italy.[7] This survey is a study of behavior of Italian youths with a focus on the causes of a prolonged stay at the parental home and youths' aspirations concerning and perceptions of work. The survey, conducted in 1998, consists of a sample of 4,500 youths, 20 to 34 year olds, still living with their parents.[8] It classifies young adults into four different categories: employed (full and part time), unemployed, looking for a first job, and students. I shall omit students from the analysis because in Italy student mobility is low. Students usually live with their family at least until they complete college.

The survey collects information on a wide variety of family sissues, including rules and participation in family life; reasons for, conditions surrounding, and advantages and disadvantages of leaving home; as well as standard individual demographic characteristics. It also poses a series of questions to young intervie-wees to evaluate their autonomy and the material circumstances within the family. Questions concern whether children could "invite friends home without asking permission," whether "there would be problems about coming home whenever they liked, spending the night away from home without letting their parents know, and inviting friends home when their parents were away."

I shall test to see whether freedom inside the household is a reason young adults remain in their parents' home. I define a dummy variable called "freedom" that is equal to 1 if children answer "yes" to the questions concerning the possibility of inviting a friend home without permission and spending the night away without letting their parents know. I use this variable as a proxy for children's autonomy in their parents' home. It should increase the desire to stay at home. Interviewees were also asked if they had a serious love relationship of more than three years; I use the answer to this question to construct a dummy that proxies how close children are to marriage. (In Italy youths move out of their parents' place only to get married, not to cohabit.)

The dependent variable used in my regression is the "desire to stay at home" of working-age individuals currently living with their parents. Each young adult between the ages of 20 and 34 living with his or her parents was asked whether he/she wished to leave the parental place in the next 12 months.

Table 1 estimates the basic linear probability model for the desire to stay home;[9] the regression controls for a quadratic in age, area dummies, a female

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7. Evidence from the Italian study is not representative of patterns in other countries; however, it is the only behavioral survey available. Lack of such surveys for other countries is indeed not surprising; given that the phenomenon of staying at home is unknown in Scandinavian Europe, there is no reason for those countries to study it.

8. Unfortunately, the survey was conducted only among youths living at home, which is not ideal. However, in this age group, they constitute 82% of the population and the results can still be considered indicative of their attitudes toward being stay-at-homes.

9. Marginal effects for probit estimations have also been calculated as a consistency check. The magnitude and significance of the coefficients remain the same.

TABLE 1. Attitudes toward permanence at home, linear probability model.

Close to getting married	−.0745***
	(.0155)
Freedom	.0482***
	(.0198)
North	.0121
	(.0212)
South	−.0544***
	(.0225)
Age	−.0504***
	(.0225)
Age squared	.0006**
	(.0005)
College completed	−.1844***
	(.0309)
Household size	−.0082
	(.0078)
Demographic size	−.0132***
	(.0043)
Female	.02562*
	(.0158)
Constant	1.6898
	(.3406)

Notes: Dependent variable: "desire to stay with parents" dummy.
Source: Survey "Giovani che non lasciano il nido", Institute for Population Research, Italy, author's calculation.
Sample size: 3,126.
The sample includes people 20–34 years old, excluding students.
* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

dummy, household size, and a variable indicating the demographic density of the place in which young adults live.

The "freedom" variable has a positive sign and is significant at the 1% level: Those living in more liberal families have a higher probability of remaining with their parents; the effect of being close to marriage is negative and significant at the 1% level, as expected. In the South, because of the more traditional confines of the home, young adults are more likely to leave their parents' home. However, if young adults were staying at home only as a result of economic necessity (due to a high unemployment rate), we would not necessarily expect a negative coefficient on the South dummy. After all, those are the ones who should be more inclined to stay home because outside conditions are extremely unfavorable. (In this area the unemployment rate for youth is twice as high as in the rest of Italy.)

3. Empirical Analysis

This section disentangles how the sexual revolution interacted with the two different family types in determining living arrangements. To identify the role of the

two family structures one could look at the differential evolution of living arrange-
ments across countries where the sexual revolution had a different impact. Such
an approach fails to separate cultural factors from economic factors, because both
are combined in a "country effect." To get around this problem and isolate the
impact of family types, I look at the living arrangements of second-generation
European immigrants in the United States at two different points in time: in 1970,
the period prior to the sexual revolution, and in the late 1990s, after the sexual
revolution had taken place. By doing this, I can observe young adults of differ-
ent national origins in a virtually identical economic environment. The extent to
which those from immigrant families differ from natives and from one another
might constitute a measure of the importance of cultural differences in shap-
ing living arrangements. Focusing on second-generation immigrants also has the
advantage of reducing selection problems, because all the young adults were born
and raised in the United States.

Consistent with the behavior of their European counterparts, Southern
European immigrants should have a slightly higher fraction of youths living at
home in the period preceding the sexual revolution. In contrast, by the 1990s,
this share should have grown much more for Southern European immigrants than
for immigrants from other countries. In societies with strong family ties, youths
tend to stay with their parents and leave only for marriage. Before the sexual
revolution, the cost in terms of privacy was so high that young people tended to
leave their parents' home early and get married; the possibility in recent years of
combining the advantages of living with parents with a full sexual life has favored
a longer life in the family. In societies with weak family ties, on the contrary, the
sexual revolution had a negligible effect. The social norm for youths in these
countries had always been the independence of the generations.

3.1. Data and Summary Statistics

I implement my empirical analysis using data from the 1970 U.S. census and from
pooled 1994–2000 March Current Population surveys (CPS). The 1970 U.S. cen-
sus 5% sample collected information on parents' place of birth.[10] After 1994,
the March CPS includes questions about the place of birth of each individual
and his or her parents. Because of the relatively small number of observa-
tions in the CPS (compared to the census), I pool the March CPS data from
1994 to 2000. I restrict the definition of "second-generation" to native-born
individuals with immigrant fathers. (This requirement substantially expands the

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10.   Unfortunately, this information is not included in the most recent census data sets.

TABLE 2. Young adults living with their parents, 18- to 33-year-old, second-generation immigrants.

Variable	Census		CPS 1994–2000	
	Mean	St. Dev.	Mean	St. Dev.
Entire sample	.2310	.4214	.2768	.4474
Portugal	.2525	.4355	.6099	.4889
Greece	.2337	.4237	.4901	.5010
Italy	.2414	.4280	.4413	.4979
Spain	.2047	.4050	.3410	.4785
Ireland	.2346	.4240	.3383	.4783
Poland	.2652	.4416	.3231	.4692
France	.1773	.3832	.3267	.4722
Germany	.1739	.3791	.2864	.4526
Netherlands	.2145	.4114	.3095	.4668
Scandinavian, Europe[1]	.1501	.3574	.1857	.3918
UK	.2175	.4127	.2267	.4195
USA	.2313	.4216	.2753	.4467
Sample size	393,141	163,076		

Notes: The fraction of youth living at home is calculated by ethnicity.
[1] Scandinavian Europe includes Denmark, Finland, Norway, and Sweden.

second-generation group relative to the alternative of requiring two immigrant parents.)[11]

Table 2 shows the living arrangements of several groups of second-generation immigrants for the 18- to 33-year-old age group in both periods. Several factors should be noted in Table 2. First, during the 1970s the fraction of youths living with their parents was slightly larger among immigrants from Southern European countries but by a small margin. In contrast, by the late 1990s this fraction had increased dramatically among immigrants from Greece (from 23% to 49%), Italy (from 24% to 44%), Portugal (from 25% to 61%), and Spain (from 20% to 34%), and remained almost constant for the United States, the United Kingdom and the Scandinavian countries, with the other continental countries (France, Germany, and Netherlands) lying somewhere in between.[12] The extent to which people from immigrant families differ from natives and from one another is an indication of the importance of culture in the determination of living arrangements, as all

11. The definition of "second-generation" immigrants according to fathers' country of origin is standard in the literature (see Card, DiNardo, and Estes 1998). The fraction of people living with their parents was calculated also for individuals whose parents are both of the same ethnicity (results available from the author). This strengthens the role of family structure, with higher/lower sample means for strong/weak family systems. I do not use this alternative definition of second-generation, because it reduces substantially the number of observations.

12. Among those countries, only France, which may be the exception because it is also partly Mediterranean, had an increase as high as 15 percentage points, from 17% to 32%.
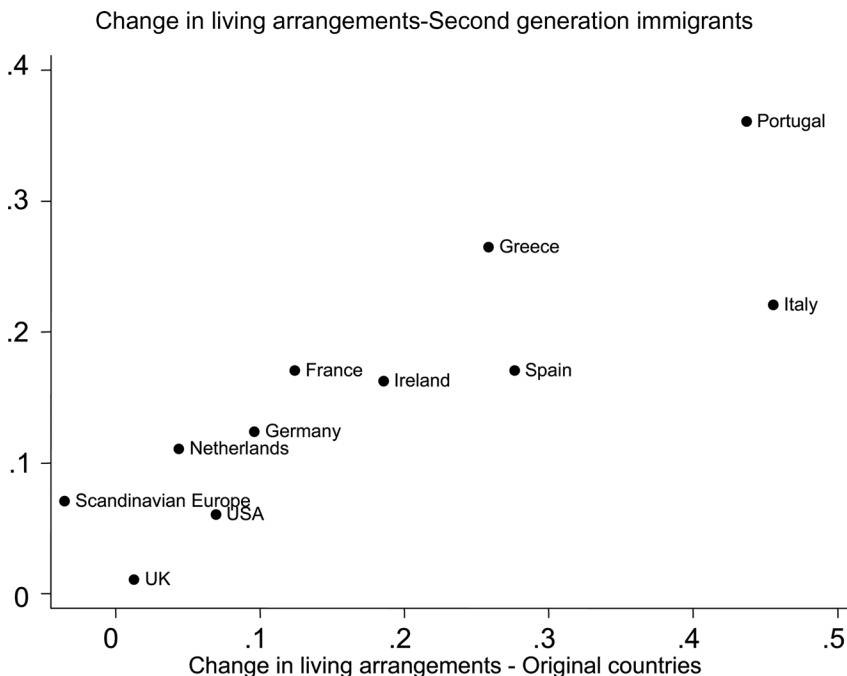
Change in living arrangements-Second generation immigrants

FIGURE 1. The change in the fraction of "stay-at-homes" (18 to 30 year olds). The correlation between immigrants and their European counterparts.

second-generation immigrants face the same economic environment, the one of the U.S.

Figure 1 plots the correlation between the change over time in the fractions of stay-at-homes in their original countries and among immigrants. The figure suggests that living arrangements among immigrants mirror the changes over time in the country of origin, an indication that not only culture matters (if unfavorable economic conditions were the sole cause for staying at home, the behavior of Mediterranean descendants in the United States should not be so distinctive) but also that a common pan-Atlantic shock (such as the sexual revolution) affected the strong and weak family types in a different way in both the original countries and the U.S.

3.2. Statistical Results

I estimate the following linear probability model:

$$s_i = \alpha + \sum_k \beta_k M_{ik} + \delta X_i + \varepsilon_i, \qquad (1)$$

where s_i equals 1 if the young adult lives with her/his parents and is zero otherwise, M_{ik} is equal to 1 if i belongs to the immigrant group k and is zero otherwise, and X_i is a set of control variables, to be described later.

In this model, the parameter β_k is regarded as a country-specific cultural effect, because the excluded group is given by the natives. A significant coefficient of 0.13 for the ethnicity k, for example, means that compared to natives, 13% more immigrants in the United States belonging to ethnicity k stay at home with their parents.

Table 3 reports the coefficients of the basic OLS regression[13] of the staying-at-home variable on the father's country-of-origin dummies, and the associated robust standard errors for 1970 and 2000. I include dummies for Italy, Spain, Portugal, Greece, France, Germany, Netherlands, Ireland, Poland, the United

TABLE 3. Young adults (18 to 33 year olds) living with their parents, second-generation immigrants.

Specification	CPS 1994–2000	Census 1970
Portugal	.1390***	0422*
	(.0319)	(.0261)
Italy	.1219***	0480***
	(.0184)	(.0067)
Greece	.0825**	0402**
	(.0290)	(.0181)
Spain	.0470	.0171
	(.0613)	(.0319)
Ireland	.0445	.0391**
	(.0296)	(.0128)
Poland	.0217	.0600***
	(.0316)	(.0110)
France	.0063	−.0191
	(.0411)	(.0295)
Germany	−.0180	−.0044
	(.0207)	(.0084)
Netherlands	.0122	.0056
	(.0494)	(.0225)
Scandinavian Europe[1]	−.0281	.0031
	(.0381)	(.0102)
UK	−.0408*	.0205**
	(.0244)	(.0102)
Observations	163,076	393,141

Notes: Dependent variable: dummy variable for a young adult living at home. Robust standard errors in parentheses. Other covariates included in the regressions are 50 state indicators, 3 metro indicators (urban, rural and metro), a quadratic term for age, a male dummy, education dummies (for less than B.A. and B.A.), labor force dummies (unemployed and out of the labor force), and per-capita family income (defined as the total family income divided by the number of family members; I convert the reported family income data from the seven CPS samples from current dollars into constant-1995 dollars prior to pooling across years).

¹ Scandinavian Europe includes Denmark, Finland, Norway, and Sweden.
* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

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13. Marginal effects for probit estimations have been calculated as a consistency check. The magnitude and significance of the coefficients remain the same.

Kingdom, and Scandinavian Europe. Native-born Americans are the excluded group. Both regressions control for a male dummy, a quadratic in age, state dummies[14] and two metro indicators, education, labor-market status, and per capita family income.[15]

Results in Table 3 suggest that in the late 1990s the probability of living at home was higher for those of Southern European origin. The estimated β_k coefficients are individually positive and significant at the 1% level for all the Southern European countries, except Spain (there are few observations for the Spanish group), indicating significant evidence for a "cultural effect" on living arrangements.[16] The similar regression for the earlier period gives different results; in this case, the probability of living with parents is only slightly (but significantly) higher for Southern European descendants.

An alternative way of testing whether culture is an important determinant for living arrangements for second-generation immigrants in the United States is to include in the regression, instead of country dummies, the fraction of 18- to 33-year-olds living with their parents in the European countries of origin. This variable is an indication of the cultural norm[17] in the country of origin in terms of living arrangements; the coefficient on this variable is an indication of how living arrangements of second-generation immigrants tend to replicate the family arrangements typical of their European countries of origin. A positive and significant coefficient is anticipated in both regressions (culture should matter for living arrangements in both periods, but the quantitative effect of culture should be lower in the 1970s when the two cultural types were more similar).

I estimate the following model:

$$s_{ijk} = \alpha + \beta C_k + \delta X_i + \varepsilon_{ijk}, \tag{2}$$

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14.   State fixed effects should control for local geographic variation in labor market and institutions.

15.   Per capita family income is defined as total family income divided by the number of family components. For the CPS data sets I converted the reported income information from the seven samples into constant 1995 dollars prior to pooling the data.

16.   A test of equality of coefficients also shows that Southern European coefficients are statistically different from the other immigrant groups.

17.   In this paper I refer to the cultural norm as the system of social norms that characterize a specific group. The social trait relevant in this case is the social norm in terms of living arrangements, which I expect to be similar in the original countries and the United States if it is part of the cultural heritage of a country. As noted in Guiso, Sapienza, and Zingales (2006), all papers written in economics trying to quantify the impact of culture on economic outcomes (see, for example, Alesina and Glaeser (2004); Fernandez and Fogli (2005); Guiso, Sapienza, and Zingales (2003, and 2004a, 2004b); and Tabellini (2006) implicitly or explicitly use the following definition of culture: "the customary beliefs, social forms, values and material traits of a racial, religious, or social group." This paper belongs to this tradition.

TABLE 4. Young adults (18 to 33 year olds) living with their parents, second-generation immigrants.

	CPS 1994–2000	Census 1970
Fraction of young adults living at home	.2965***	.3677***
in the original European country	(.0280)	(.1057)
Male	.1304***	.0480***
	(.004)	(.0013)
Education		
Less than Diploma	−.0628***	.0573***
	(.0027)	(.0033)
Diploma	−.0485***	.0199***
	(.0036)	(.0034)
Labor-market status		
Unemployed	.0593***	.0803***
	(.0090)	(.0036)
Out of labor Force	.0674***	−.0328***
	(.0040)	(.0013)
R^2	.326	.4012
Observations	162,907	406,238

Notes: Dependent variable: a dummy variable for a young adult living at home. Robust standard errors in parentheses. Other covariates included in the regressions are state dummies, 2 metro indicators, and a quadratic term for age.
  * Significant at 10%. ** Significant at 5%. *** Significant at 1%.

where s_{ijk} is the decision to stay at home of a young adult i who lives in state j and is of cultural origin k; C_k is the fraction of people living at home in their original countries; and X_i is a set of controls, including age, sex, education, labor market status, state, and metropolitan dummies. All the standard errors are corrected for clustering at the country of origin level.

The results for this regression are reported in Table 4. The cultural norm variable is statistically significant at the 1% level in both periods. In 2000, a one-standard-deviation increase in the social norm corresponds to a 16% increase in the fraction of people staying at home (as a comparison, in the same period a one-standard-deviation increase in the unemployed dummy corresponds to only a 6% increase in the fraction of people staying at home). As for the 1970s, a one-standard-deviation increase in the cultural norm corresponds to a 3% increase in the fraction of people staying at home (a one-standard-deviation increase in the unemployed dummy corresponds to a 4% increase in the fraction of people staying at home).

In order to test for a "structural shift" in living arrangements, possibly caused by the sexual revolution, I also run a pooled regression (including both CPS and census data) in which I include the same variables of the original model and the interaction terms of the ethnicity dummies

with a year 2000 dummy.[18] Besides controlling for state dummies, which should take care of state fixed effects on the decision to live at home, this regression also controls for state-specific time variations (including an interaction of the state dummies with the year 2000 dummy: $\lambda_j I_{2000}$). This should rule out the possibility that state-specific trends in areas in which immigrants concentrate are driving the results (a more pronounced increase in housing prices or a change in the welfare system in those states in which Mediterranean immigrants concentrate could have been responsible for the pattern observed in the United States). I run the following regression:

$$s_i = \alpha + \sum_k \beta_k M_{ik} + \sum_k \gamma_k M_{ik} I_{2000} + \delta X_i + \lambda_j I_{2000} + \varepsilon_i. \qquad (3)$$

The interaction of the ethnicity dummies and the year 2000 dummy can be regarded as a measure of a structural change in living arrangements across cultures. If the values of the coefficient on the interaction terms, γ_k, are significantly different from zero, I shall claim to have identified a structural shift in living arrangements between 1970 and 2000. The coefficients on the interaction terms, γ_k, are all positive (see Table 5); based on the χ^2, the γ_k are jointly different from zero at the 1% level of significance for Southern Europe but not jointly significant for France, Germany, Ireland, Netherlands, Poland, Scandinavian Europe, or the United Kingdom. I also run a specification of a model that is fully interacted with the 2000 year dummy, in order to do a test of equality of coefficients between ethnicities at two different points in time. Living arrangements for Southern Europeans are significantly different in 2000 and 1970 (with the exception of Spain, a country with very few observations). For all the other countries, the significance level is always greater than 10%, with the exception of France (7%). As mentioned before, stay-at-home could have increased significantly in France because it is also partially Mediterranean.[19]

3.3. Social Acceptability of Living at Home

In this section I explore the role of neighborhood composition in the determination of living arrangements. Living at home in Mediterranean Europe is socially accepted: The probability of staying at home is higher when there is a greater proportion of young adults behaving similarly in the same age group. In the United States as well, the probability of replicating the cultural norm of the country of origin should be higher the greater the density of a particular ethnic group in

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18. A dummy equal to one for the years 1994–2000 in the CPS data set.
19. Results available from the author.

TABLE 5. Young adults (18 to 33 year olds) living with their parents, second-generation immigrants, pooled regression.

Portugal	.0602**	Portugal 2000	.1380***
	(.0259)	(.0388)	
Italy	.0623***	Italy 2000	.0708***
	(.0067)	(.0177)	
Greece	.0440**	Greece 2000	.1025***
	(.0177)	(.0329)	
Spain	.0337	Spain 2000	.1073*
	(.0317)	(.0674)	
Ireland	.0541***	Ireland 2000	−.0151
	(.0128)	(.0300)	
Poland	.0652***	Poland 2000	−.0211
	(.0111)	(.0324)	
France	−.0083	France 2000	.0524
	(.0288)	(.0539)	
Germany	.0032	Germany 2000	−.0095
	(.0084)	(.0198)	
Netherlands	−.0030	Netherlands 2000	−.0048
	(.0226)	(.0523)	
Scandinavian Europe	.0081	Scandinavian Europe 2000	.0152
	(.0102)	(.0438)	
UK	.0250**	UK 2000	−.0282
	(.0102)	(.0236)	
Observations	556,224		
R^2	.249		

Notes: Scandinavian Europe includes Denmark, Finland, Norway, and Sweden; robust standard errors in parentheses; other covariates included in the regressions are state dummies, state dummies interacted with a year 2000 dummy, metro indicator, a quadratic term for age, a male dummy, education dummies (diploma and some college), labor market status dummies (unemployed and out of labor force). p-values: $\gamma_j = 0(0.000)$; Southern Europe = 0 (0.000); Ireland, Poland, France, Germany, Netherlands, Scandinavian Europe = 0 (0.8378).

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

a certain neighborhood (second-generation Italians who live near other second-generation Italians—e.g., in Little Italy in New York—should be more likely to reflect the behavior of their country of origin than those who do not—e.g., those in Alabama). If peer effects are important, then a Southern European young adult should be more likely to stay at home in those primary metropolitan statistical areas (PMSAs) with a higher concentration of Southern European immigrants. I would not expect to observe a similar correlation among other second-generation European immigrants, for whom the norm is not living at home.

I find a systematic relationship between large increases in the stay-at-home rates of second-generation Southern Europeans from 1970–2000 and higher concentrations of second-generation Southern Europeans at the PMSA level.[20]

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20. I define *concentration* as the number of second-generation immigrants 18 to 33 years old living in a given PMSA divided by the PMSA population of the same age group.

I do not observe the same phenomenon for Western (France, Germany, and the Netherlands) and Northern (Scandinavian Europe and the United Kingdom) Europeans.[21] Those correlations are reported in Figures B.1, B.2, and B.3 in Appendix B.

4. Discussion

In this section I try to explore the robustness of my findings. This paper proposes an interpretation based on a delay of marriage due to a change in attitudes toward sexual behavior, which implies a longer time spent at one's parents' place in countries with strong family ties. Anything that leads to a delay of marriage, however, could have the same effect on living arrangements in countries with strong family ties. To address this concern, I analyze two possible important alternatives that could have changed the desired age of marriage: worldwide increases in housing prices and in female labor force participation.

4.1. Increase in Housing Prices

Staying-at-home behavior could be caused by an increase in housing prices all over the world, coupled with different preferences in home ownership across cultures. If, for example, Southern Europeans both in the United States and in Southern Europe have a higher preference for owning the house they live in, an increase in house prices all over the world could have been responsible for the increase in the fraction of young adults living at home: Southern Europeans in the United States and at home would have to wait longer to leave their parental house before buying their own place. To rule out this possibility I look at the rate of home ownership across ethnicities in 2000. If Southern Europeans tend to stay with their parents because of different preferences for home ownership, we should observe a higher fraction of home ownership among this immigrant group, after controlling for individual characteristics (sex, age, education, labor market status, and family income), state, metropolitan areas, and years of immigration dummies. The results for the home ownership regression are reported in Table A3. There is no evidence of differences in preferences for home ownership across ethnicities; therefore, we can rule out the possibility that living arrangement increased as a response to a rise in housing prices.

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21. To confirm that the analysis is not just picking up secular differences across states, I also found that stay-at-home rates for U.S. natives do not covary with the concentrations of Southern Europeans. This exercise allows me to conclude that differences in living arrangements are most likely driven by ethnicity and not by economic characteristics of the areas in which different immigrant groups live.

4.2. *Increase in Female Labor Participation*

An alternative possibility to explain the pattern in living arrangements in Western Europe is the increase in female labor participation; women today may tend to delay marriage more than in the 1970s due to a higher participation in the labor market. The cultural differential effects could come into play in this case, because a working woman may want to delay marriage and childbearing and "has" to live at home in certain cultures but not in others.

To test this hypothesis, I regress the probability of living at home on a female dummy and on Southern Europe, Western Europe, and Northern Europe dummies and an interaction between Southern, Western and Northern Europe with the female dummy. If this hypothesis were true, we should expect a positive coefficient on the female dummy, and a positive coefficient on the interaction term between the female dummy and the Southern Europe dummy in 2000, but not in the 1970s. The results of this regression are reported in Table A4. It is apparent from this table that the female dummy is negative and significant in both 1970 and 2000. This would be consistent with the idea that parents tend to be more strict with daughters than with sons and that women tend to get married earlier than men. The interaction term between the Southern Europe dummy and the female dummy is not significant in 2000, and is positive and significant at the 5% level, but small in the 1970s. If an increase in labor participation were causing the phenomenon, we should observe exactly the opposite pattern: a higher propensity to leave their parents' home today among the Southern European women, due to increased female labor participation, compared to the previous generations.

5. Conclusion

Over the past 30 years the family structure has changed substantially in Southern Europe. Mediterranean youths tend to stay at home for a very long time, postponing later stages of adult life, such as getting married and having children. It is important to understand why these changes in family structure have occurred. Several stylized facts suggest that the economic explanations given so far are not sufficient to interpret the phenomenon. There is, in consequence, a need for another hypothesis. This paper proposes a cultural interpretation for the dramatic increase in the fraction of stay-at-homes in Mediterranean Europe. I argue that the sexual revolution of the 1970s—by liberalizing parental attitudes—had a differential impact on living arrangements in Northern and Southern Europe on account of the closer parent–child ties in Southern Europe. For Mediterranean youths, for whom the social norm is to live with their parents until marriage, the new liberal parenting attitudes toward sexual behavior implied a reduction in the privacy cost of living at home, with a consequent postponement in marriage. For

Northern European youths, accustomed to leaving their parents' home at a young age regardless of marriage, it implied different forms of living arrangements such as cohabitation.

I disentangle economic from cultural effects by comparing family attitudes of immigrants of different nationality living in an identical economic environment, the United States, before and after the sexual revolution. There is a striking correlation between the fraction of second-generation immigrants who live with their parents in the United States and the corresponding fractions in the countries of origin. Moreover, the immigrant group–specific changes in the stay-at-home rates from 1970 to 2000 also mimic those in Europe. The duplication over time of the European patterns among second-generation immigrants in the United States provides credible evidence that cultural norms and an exogenous shock—such as the sexual revolution—could play a significant role in the living arrangements of young adults.

Leaving home is a phenomenon that is well worth studying. The dramatic changes in living arrangements over the last 30 years can have major macroeconomic and demographic consequences. In Southern Europe young people leave home when they get married. Household formation and procreation are postponed, with potential important effects on the decline in fertility for these countries.[22] Understanding the reasons behind such a dramatic change in family structures is then quite relevant for the debate on policies attempting to increase employment and fertility among younger European cohorts and the discussion surrounding the solvency of intergenerational transfer programs in Mediterranean countries.

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22. Mediterranean Europe has a very low incidence of out-of-wedlock births (3% in Greece and 8% in Italy, as opposed to 55% in Sweden).

Appendix A

TABLE A.1. Country summary statistics, census 1970 (age group 18–33).

Country	Obs.	Fraction living at home	Age	Up to 12 years of education	Some college	College plus	Fraction employed	Fraction unemployed	Out of labor force	Armed force
Portugal	198	.2525	26.17	.77	.21	.02	.61	.025	.333	.03
Greece	385	.2337	26.31	.459	.48	.06	.667	.031	.288	.01
Italy	3168	.2414	26.97	.647	.311	.04	.62	.02	.335	.018
Spain	127	.2047	26.11	.653	.314	.03	.63	.023	.307	.04
Ireland	865	.2346	26.95	.596	.351	.05	.62	.026	.334	.016
Poland	1184	.2652	26.28	.448	.451	.099	.60	.023	.36	.017
France	141	.1773	25.63	.567	.397	.035	.588	.021	.35	.042
Germany	1633	.1739	26.30	.532	.409	.058	.60	.018	.355	.03
Netherlands	233	.2145	25.59	.60	.369	.03	.64	.038	.304	.017
Scandinavian Europe	959	.1501	26.80	.56	.396	.043	.622	.023	.316	.036
UK	1301	.2175	26.15	.515	.423	.06	.627	.026	.313	.033
USA	382947	.2313	24.63	.634	.341	.025	.59	.036	.340	.035

Source: Census 1970, Form 2 state.

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TABLE A.2. Country summary statistics, CPS 1994–2000 (age group 18–33).

Country	Obs.	Fraction living at home	Age	Less than diploma	Diploma	B.A.	Master and more	Fraction employed	Fraction unemployed	Out of labor force
Portugal	205	.6099	23.32	.19	.29	.5121	.005	.7514	.082	.165
Greece	216	.4901	24.68	.07	.199	.6574	.074	.6497	.016	.333
Italy	648	.4413	26.16	.06	.279	.6095	.0524	.7822	.052	.165
Spain	54	.3401	25.57	.11	.185	.6481	.055	.6666	.092	.240
Ireland	194	.3383	27.24	.041	.2268	.6546	.077	.8622	.053	.083
Poland	145	.3231	26.68	.082	.2344	.6206	.062	.7916	.016	.191
France	73	.3267	24.86	.1643	.1780	.6438	.013	.7457	.050	.203
Germany	440	.2864	25.66	.1090	.2818	.5431	.065	.7513	.040	.208
Netherlands	52	.3095	25.69	.0576	.1346	.7115	.096	.8076	.019	.173
Scandinavian Europe	68	.1857	26.97	0	.1911	.7205	.088	.6617	.044	.294
UK	272	.2267	26.58	.073	.2904	.5514	.084	.8101	.023	.166
USA	160716	.2753	25.83	.1345	.3326	.4998	.032	.7527	.053	.193

Source: CPS 1994–2000, March Demographic Supplement.

TABLE A.3. Preferences for home ownership across ethnicities.

	CPS 1994–2000
Portugal	−.0865
	(.1429)
Italy	−.0595
	(.1423)
Greece	−.0470
	(.1428)
Spain	−.1268
	(.1441)
Ireland	−.1737
	(.1424)
Poland	−.1178
	(.1423)
France	−.1315
	(.1431)
Germany	−.0856
	(.1420)
Netherlands	−.0660
	(.1442)
Scandinavian Europe	−.1254
	(.1427)
UK	−.1159
	(.1419)
Observations	580,348

Notes: CPS 1994–2000. Dependent variable: a dummy variable for home ownership.

Scandinavian Europe includes Denmark, Finland, Norway, and Sweden.

Robust standard errors in parentheses.

Other covariates included in the regressions are family income, state dummies, 2 metro indicators, years of immigration dummies, a quadratic term for age, a male dummy, education dummies (less than B.A. and B.A.), and labor market status dummies (unemployed and out of labor force).

TABLE A.4. Young adults living with their parents, 18- to 33-year-olds, second-generation immigrants.

	Census 1970	CPS 1994–2000
Southern Europe	.0320***	.1046***
	(.0089)	(.0195)
Western Europe	−.0151	−.0397
	(.0114)	(.0258)
Scandinavian Europe + UK	.0108	−.0617*
	(.0111)	(.0341)
Ireland + Poland	.0547***	.0241
	(.0125)	(.0316)
Southern Europe*Female	.0274**	.0201
	(.0121)	(.0273)
Western Europe*Female	.0209	.0587*
	(.0153)	(.0350)
(Scandinavian Europe + UK)*Female	(.0146)	.0487
	.0045	(.0413)
(Ireland + Poland)*Female	−.0068	.0241
	(.0168)	(.0316)
Female	−.0434***	−.1225***
	(.0014)	(.0022)
Observations	393,141	163,076

Notes: Dependent variable: a dummy variable for a young adult living at home. Scandinavian Europe includes Denmark, Finland, Norway, and Sweden. Robust standard errors in parentheses. Other covariates included in the regressions are per-capita family income (defined as total family income divided by the number of family members; I convert the reported family income data from seven CPS samples from current dollars into constant 1995 dollars prior to pooling across years), state dummies, 3 metro indicators, a quadratic term for age, education dummies (less than B.A. and B.A. for the CPS and up to 12 years of college and some college for the Census), and labor market status dummies (unemployed and out of labor force).

* Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Appendix B

SOUTHERN EUROPE

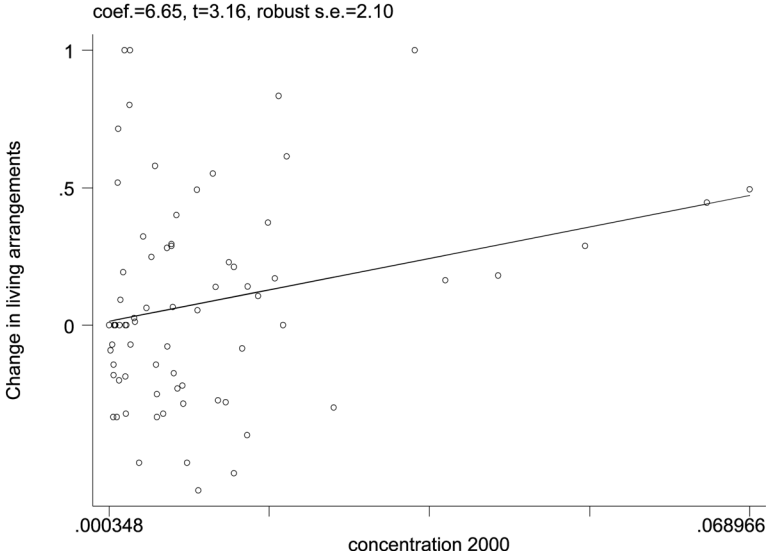coef.=6.65, t=3.16, robust s.e.=2.10

FIGURE B.1. Correlation between the change in the fraction of young adults living at home from 1970 to 2000 and the concentration level of immigrants (2000) at the PMSA level for *Southern European* second-generation immigrants, 18–33 years old.
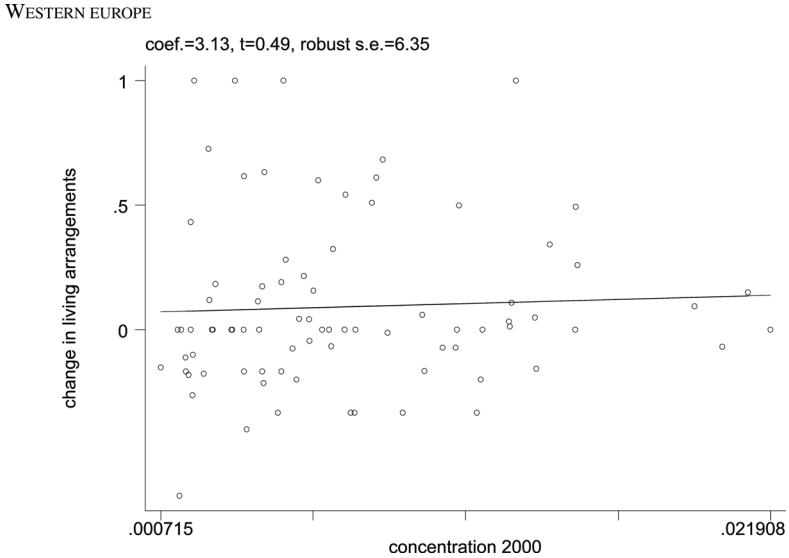
WESTERN EUROPE

FIGURE B.2. Correlation between the change in the fraction of young adults living at home from 1970 to 2000 and the concentration level of immigrants (2000) at the PMSA level for *Western European* second-generation immigrants, 18–33 years old.
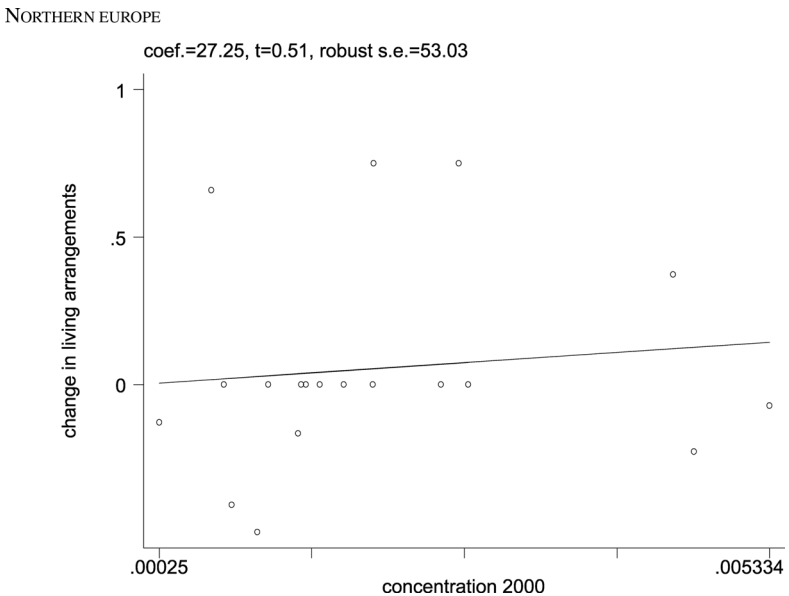
NORTHERN EUROPE

FIGURE B.3. Correlation between the change in the fraction of young adults living at home from 1970 to 2000 and the concentration level of immigrants (2000) at the PMSA level for *Northern European* second-generation immigrants, 18–33 years old.

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