I Z A Institute
of Labor Economics
Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 13340

Do Immigrants Pay a Price When Marrying Natives? Lessons from the US Time Use Survey

Shoshana Amyra Grossbard
Victoria Vernon

JUNE 2020

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

DISCUSSION PAPER SERIES

IZA DP No. 13340

Do Immigrants Pay a Price When Marrying Natives? Lessons from the US Time Use Survey

Shoshana Amyra Grossbard
San Diego State University, HCEO, IZA and CESifo

Victoria Vernon
Empire State College

JUNE 2020

ISSN: 2365-9793

IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

Do Immigrants Pay a Price When Marrying Natives? Lessons from the US Time Use Survey

Using the American Time Use Survey for the years 2003-18 we compare the allocation of time of native men and women married to immigrants with that of their counterparts in all-native couples. We find that when intermarried to a native some immigrant women pay an assimilation price to the extent that, compared to native women in all-native marriages, they work longer hours at paid work, household chores or both, while their husbands do no extra work. In some cases they work an extra hour per day. Immigrant men don't pay such price. Some work 34 minutes less at household chores than native men in all-native marriages, while the native women who marry immigrant men seem to pay a price relatively to what their situation would be in an all-native marriage. An explanation based on the operation of competitive marriage markets works for immigrant women but not for immigrant men. Traditional gender-based privileges may allow immigrant men to prevent native women from capturing a price for the value that intermarriage generates for their husbands. Such 'male dominance' scenario also helps explain why immigrant men married to native daughters of immigrants from the same region get more benefits from intermarriage than other immigrants.

JEL Classification: D13, J12, J22

Keywords: time use, immigration, household production, intermarriage, marriage market

Corresponding author:
Shoshana Grossbard
Department of Economics
San Diego State University
San Diego, CA92182
USA

E-mail: shosh@mail.sdsu.edu

1. Introduction

Intermarriage is common in the USA: Around 7% of married couples in the US, or over 4 million households, consist of a native and a foreign-born spouse. [1] In this paper we examine intermarriage gaps in individual time devoted to household production work and work in the labor force as a function of whether natives (immigrants) are intermarried or not.

Marriage is one of the channels by which immigrants assimilate. It has been shown that immigrant men benefit from intermarriage with US-born natives in terms of faster wage growth and better job market opportunities in the U.S.A. (Kantarevic 2004, Furtado and Theodoropoulos 2009, Chi 2015) and Australia (Meng and Gregory 2005). Native spouses assist immigrants with access to social capital, finding employment, obtaining legal status, and acquisition of language skills (Furtado and Theodoropoulos 2010). For immigrant women, intermarriage does not lead to higher wages (Basu 2015) but offers other benefits, such as a faster path to citizenship, deeper assimilation, better language skills, exposure to a potential network of employees, more resources for (potential) children, a higher standard of living, or more household wealth.

Marriage market theory predicts that immigrants may be willing to pay a price to marry a native in exchange for the 'assimilation services' they supply, thereby creating a premium for the US born spouse that can take the form of lower labor force participation, fewer hours of paid work, less demanding work, fewer chores at home, or more free time. It may also take the form of a higher workload for the immigrant spouse who may work more for pay or do more chores at home, thereby benefiting the native spouse. The size of

[1] Census https://www.census.gov/newsroom/press-releases/2013/cb13-157.html

the premium is likely to vary according to the need for assimilation services on the part of the immigrant spouse: it may be close to zero when natives marry immigrants from English-speaking countries or grown-up child immigrants who require no language assimilation. Immigrants who are not US citizens may receive a higher benefit from acquiring legal status through marriage and thus may be willing to pay a higher price for intermarriage or 'assimilation price'. The premium for the native spouse may be attenuated by the fact that native spouses may also benefit from a cultural exchange with the immigrant, which would suggest a payment back to the immigrant for exposure to a foreign language or cultural immersion.

Assimilation premia and penalties in intermarried families are hard to identify, in part because intermarried couples may have larger earning differentials than native couples, and therefore they may be more likely to specialize. In addition, individuals may not be randomly selected into intermarriage, as their preferences regarding careers, household production and family size may play a role when selecting a spouse. Furthermore, culture, social norms and even the gendered aspects of the native language shape immigrants' behavior (Beblo et al 2020). Social norms around gender equality in the country of immigrant ancestry have been shown to influence the division of housework in immigrant households in the US, as well as among their adult offspring. Spouses from more gender-equal countries divide housework more equally and partners spend more time in joint housework (Marcen and Morales, 2019, Blau et al, 2020).

Previous research on time allocation and intermarriage between natives and immigrants includes Nottmeyer (2014) and Basu (2017). Our approach differs from theirs in at least two respects. First, they focus on immigrants and compare their intermarriages

to natives with marriages between two immigrants. We also study such intermarriages but our primary focus is on comparing native/immigrant intermarriages with marriages between two natives. Second, they focus on time the household allocates to the labor force and/or on household specialization, not on the absolute amount of time that each spouse devotes to household production.

Existing analyses of household specialization were influenced by Becker's (1965, 1981) models. He and Mincer (1963) assumed that multi-person households such as married couples make decisions regarding time allocation, not individuals. Specialization and division of labor are major themes in these models as well as in prior empirical studies of the relative involvement of men and women in household production, such as Stratton (2005) and Bonke et al. (2008). In contrast, our outcomes of interest are individual hours of work in the labor force and in specific activities related to household production that we classify as chores. We look at the association between intermarriage and total hours of work, for it has implications for individual wellbeing. Individual wellbeing is assumed to be an inverse function of hours of work, as in standard labor economics, but in this case work in chores is one type of work. Our emphasis on individual wellbeing is grounded in another of Becker's models: his competitive marriage market analysis that first appeared in Becker's (1973) theory of marriage.

In this paper we use data from the American Time Use Survey (ATUS) 2003-18 to compare the allocation of time of native (immigrant) men and women in heterosexual marriages to immigrants (natives) relative to that of their counterparts in all-native and all-immigrant couples. We find that when intermarried to a native some immigrant women pay an assimilation price in one or more of the following ways: compared to their

counterparts in all-native marriages they have a higher total workload, they do more chores, or they benefit from fewer hours of chores performed by their native spouse. For instance, immigrant wives married to second generation native men from the same origin contribute over an hour more paid work and chores per day compared to native wives, while their husbands do no extra work.

In contrast, very few immigrant men pay a price for assimilation when married to native women. On the contrary, they often work less hard than comparable native men in all-native marriages. For example, immigrant men married to native women born to immigrant parents from the same region work 34 minutes less at household chores than native men in all-native marriages. As for the native women who marry immigrant men some of them seem to pay a price relatively to what their situation would be in an all-native marriage.

Our findings for immigrant women are consistent with a competitive marriage market analysis and the value of intermarriage to immigrants, as outlined in Section 2 of this paper and based on Grossbard-Shechtman (1984). Results are consistent with the functioning of price mechanisms in these marriage markets. However, an explanation based on the operation of competitive marriage markets does not fit our findings for immigrant men. It is possible that in this case traditional institutions interfere with the forces of demand and supply. Men's control over institutions in their communities and countries of origin may give them the power to prevent native women from capturing a price for assimilation in the marriage markets where native women and immigrant men interact. This 'male dominance' scenario based on Grossbard (2020) also helps interpret the finding that immigrant men married to native daughters of immigrants from the same

region get more benefits from intermarriage than those married to native women three or more generations in the US.

Section 3 presents the data and methods. Section 4 presents results, mostly comparing men and women in intermarriages with immigrants to natives in all-native marriages. We also briefly compare intermarried immigrants with immigrants in all-immigrant marriages.

2. Intra-household time allocation and marriage match

Allocation of time in married couples.[2] Chores are defined as household production activities that most people want to avoid and that often benefit the spouse as well as the person doing the work (if what is being produced are household public goods). Therefore, the more chores one does, the worse off one is; the more chores the spouse does, the better off one is.

Becker's (1965, 1981), and many economists in his footsteps, assumes that a married household makes decisions on what to produce and who is assigned to particular production tasks via household consensus or a household dictator. Instead, we follow Grossbard-Shechtman (1984, hence GS84) and assume that decisions on own allocation of time to work and household production are made by individual agents before, during or after marriage.[3] Nevertheless, a married individual's willingness to work is expected to vary as a function of what the spouse does, and they may coordinate their work decisions.

Among egalitarian couples there may be an equal exchange of household production for income earned from work. Where one spouse does more of the household production

[2] It would be interesting for future work to expand the analysis and include unmarried couples.
[3] Individual decision-making also underlies traditional micro-foundations of models of firms and workers.

the other the spouse doing more paid work may transfer some form of compensation to the other in exchange for the fruits of household production. Such transfer allows the household production worker to buy goods and services for their personal consumption in excess of what they could afford if they were single.

We assume that the individuals observed as part of a marriage have been or still are part of marriage markets in which people with their characteristics interact. As Becker (1973, 1981) we view marriage markets as places where individuals interact and make decisions such as 'marry or stay single', 'whom to marry' or 'stay married or leave'.[4] As in GS84 our marriage markets are markets for household production work supplied by a spouse. If not committed to an egalitarian exchange of household chores, some individuals may have a demand for chores performed by a spouse; others may be on the supply side in terms of their willingness to perform household chores benefiting a spouse.

We now assume heterosexuality. [5] In each market there is a going price for the individuals willing to work in household production benefiting a spouse. That price may be established (1) in market equilibrium via the forces of demand and supply, assuming competition between all the individuals on the demand side and all the individuals on the supply side, as in GS84, or (2) by men if they dominate their society politically or culturally and use their power to keep prices for women's work in household production below the levels that would be obtained if marriage markets were free and men had to compete with each other (Grossbard 2020).[6] Cases of women getting low pay include

[4] The second demand and supply model in Becker (1973) is most relevant here. This model is not included in his *Treatise* (Becker 1981, 1991). Becker's *Treatise* includes models where households make decisions, such as the household production models, as well as individual decisión-making models such as a competitive marriage market model.

[5] The GS84 model is not limited to heterosexual couples and can accommodate household level consumption.

[6] We don't know of societies where women dominate and set prices for men as grooms or husbands.

women living in societies and cultures where men dominate and prevent women from capturing their market value as producers of household goods and services. Furthermore, in such societies women may not necessarily work more hours in the labor force when their price as household producers is low, as this may threaten men's dominance in society and they may actively prevent women's labor force participation via marriage bars and similar policies (Grossbard 2020).

The higher the price a person obtains for their work in marital household production, the less time that person will spend working at a paid job (Grossbard-Shechtman 1984). Total time spent working may thus be lower for individuals with higher value in their marriage markets. Conversely, individuals who earn a low 'pay' for their work in marital household production are expected to work more hours at household chores and possibly also more in the labor force.

We assume that an individual is better off when she or he works less, either in the labor force or in chores. The lower total own work hours (in labor force and in chores) the better off the individual. Since a spouse's chores are often of benefit to the respondent, we assume that an individual is better off when their spouse works more at chores. However, if the individual is paying a high price to the spouse for doing chores via an intra-household transfer, the individual may not be better off when the spouse does more chores. The individual is also better off the more their spouse works in the labor force to the extent that spouses who work more also earn more and some of the benefits of extra income spill over to the individual.

Intermarriages between natives and immigrants. Now consider separate marriage markets for native men and women, immigrant men and women (possibly from different

origins), native men and immigrant women, and immigrant men and native women.[7] Some of the immigrants came from English-speaking countries; others not. Some immigrants obtained US citizenship; others not. Some of the immigrants arrived as children; others came at a later age. Immigrants with different characteristics participate in separate but interrelated marriage markets that also include other immigrants and natives. Intermarriage with natives may offer immigrants benefits such as improved social capital and language skills, a better shot at obtaining employment, legal status (as documented by Furtado and Theodoropoulos 2010), and faster wage growth (Kantarevic 2004, Meng and Gregory 2005, Furtado and Theodoropoulos 2009).[8] The prospect of such benefits may increase the demand for native spouses among immigrants.

If marriage markets are competitive, demand and supply analysis implies that the larger the demand relative to the supply, the higher the price. Therefore, in markets for marriage between natives and immigrants the price of natives will be high relative to the price of natives in markets where all participants are native to the extent that immigrants' demand for natives exceeds natives' demand for natives. For example, in a market for native men, if the prospect of benefits from intermarriage make immigrant women more eager to marry native men relative to native women, immigrant women's demand for native men's services is expected to lie to the right of the native women's demand for such services. Figure 1 depicts two juxtaposed marriage markets and helps follow this argument: a market for native men marrying native women is juxtaposed to a market for

[7] These are interrelated hedonic markets (see Grossbard 2015). There may also be different markets for individuals varying in education, age and other traits. Grossbard et al. (2014) examine the link between intermarriage with a member of a different race (black or white) and allocation of time.
[8] However, it has been found that for some immigrant women, such as Asian women in the U.S., intermarriage does not lead to higher wages (Basu 2015).

native men marrying immigrant women. Assume the supply by native men is the same in both markets, all other relevant traits of men and women are the same, and marriage markets are competitive. Then the demand by immigrant women and the equilibrium market price that immigrant women are expected to pay when marrying native men will exceed the demand by native women and the equilibrium price that native women are expected to pay. The extra price paid by immigrant women married to native men may take the form of extra work on chores performed by immigrant women, extra hours of work by immigrant women, less work on chores performed by native men, and fewer hours of work by native men. As long as marriage markets are competitive it follows that relatively to native men (women) married to natives, immigrant men (women) married to natives pay a price because they have a demand for the household production work of natives that exceeds native individuals' demand for natives' work in household production. As a result, relative to native men (women), immigrant men (women) may perform extra work in the labor market, extra work on household chores, or they may benefit from less work performed on their behalf by their wives.

However, these conclusions don't apply if marriage markets are not competitive. For example, in a society, men may have more power than women and use that power to influence marriage market values to their own best interest (Grossbard 2020). In terms of this analysis, immigrant men, their families, and their native wives' families may prevent native women from capturing their value in native/immigrant marriages in the US.[9]

[9] In turn, various societies, including communities of immigrants from the same region, may institute norms that solidify men's power in household decision-making affecting time use by all individual members of the household.

As a result, native women may not capture the value of intermarriage to immigrant men in the form of less work either in the household or the labor force. Nor may immigrant men work more hours in the labor force or in household production. This is more likely to be the case if immigrants come from countries where male domination and interference with marriage market forces are more common. Alternatively, men may use their dominance in other areas such as community or politics in order to directly force women to allocate more time to chores (and possibly other work) than they otherwise would. Male dominance has been shown to influence allocation of time to chores in previous research (e.g. West and Zimmerman 2009).

Non-US citizen immigrants in need of assistance with obtaining US citizenship may have a higher demand for a native spouse than immigrants who are citizens. This leads to the prediction that if marriage markets are competitive, immigrants married to natives who are not citizens are more likely to pay a price in the form of heavier workload in chores or labor force or a spouse who performs less work relative to their work in all-native marriages.

Culture and language are important determinants of immigrant women's labor supply and overall time allocation (Blau 2015, Gay et al. 2018). The hours of work of immigrants and their spouses may differ as a function of the language spoken in their country of origin, age at which they immigrated or US citizenship, for some of the following reasons. Immigrants from English-speaking countries may have a lower demand for assimilation services, and marriage to a native, than those from other countries whose English leaves more to be desired. Consequently, if marriage markets are competitive natives who intermarry could capture a higher price from immigrants with a

mother tongue other than English relative to the price they would get from another native. Therefore, immigrants from non-English speaking countries may have a heavier workload or work more in chores compared to natives and immigrants from English speaking countries. The extra price paid by immigrants from non-English speaking countries could also be reflected in a lighter workload or fewer chores on the part of the natives married to these immigrants.

We also distinguish immigrants by their age at immigration. [10] Immigrants who arrived as children may have a lower demand for assimilation via intermarriage than immigrants who arrived as adults. Consequently, it is predicted that immigrants who arrived after age 10 are more likely to pay a price for marrying natives than is the case of immigrants who arrived under age 10. Again, the price could take the form of a heavier workload or more chores on the part of the immigrant or a lighter workload or fewer chores on the part of the native spouse. Likewise, we distinguish between those who immigrated as teenagers and those who were 20 years old or older.

Finally, we distinguish between natives who were born in the US to immigrant parents—we call them second generation natives--and those whose parents were both born in the U.S, they are 3rd + generation of natives. [11] In terms of competitive marriage market analysis, second-generation natives who were exposed to immigrants' culture may need less of a compensation for marrying an immigrant than natives whose families have been at least three generations in the U.S. Natives' willingness to marry immigrants may vary according to parental country of origin. Furthermore, depending on parental

[10] Age is another trait that could influence price in marriage markets. Competitive marriage markets could establish a premium for youth. Therefore, we control for both wife's and husband's age.
[11] They are often called 'second generation immigrants', but we use the term 'second generation native' to clarify who is the immigrant and who is the native.

country of origin natives may also differ in their acceptance of marriage market forces such as demand and supply. Both natives and immigrants may differ in their acceptance of male domination in marriage markets and in individual households, and for natives this acceptance may vary by parents' region of origin.

3. Data and econometric strategy

3.1 Data

We analyze data from American Time Use Survey (ATUS) for years 2003-18. The ATUS is an annual supplement to the March Current Population Survey. [12] The survey contains diary time use data for a representative sample of the US population. The survey contains information on demographic characteristics, labor market status, and wages. For this study of intermarriage an advantage of the ATUS is that it identifies countries of birth of all household members and their parents. Drawbacks of the survey are that it only includes information on 24-hour time use and for only one household member, not permitting a simultaneous examination of the allocation of time of both spouses. However, it contains information about the spouse provided by the respondent. We select married respondents ages 20-60 with spouses ages 20-60 in order to focus on the time use and marriage choices of prime age adults.[13]

We focus on explaining the time use of respondents who were born in the US and call them 'natives', comparing respondents married to other natives (endogamously) to those intermarried with immigrants. Respondents born abroad to at least one US parent are

[12] Documentation and data files for both surveys are at http://bls.gov/tus/
[13] We removed about 700 records with more than 3 hours of missing activities, fewer than 15 min of sleep, more than 22 hours of chores, paid work or personal care each in order to focus on typical daily time use.

classified as natives. Immigrants are defined as respondents born abroad whose parents were also born abroad. [14] Our samples consist of 28,282 native men, 31,354 women married to native men, 31,284 native women and 28,102 husbands of native women (Table 1). About 4.8% of native men and 4.4% of native women are intermarried to immigrants, with Mexico and Latin America being their most common birthplaces. Among the mixed-nativity intermarried couples, the foreign-born spouse is thus more likely to be the wife (53%) than the husband (47%). About 3% of natives come from families with two immigrant parents, and 4% have one immigrant parent. Second-generation natives, especially if two parents are foreign-born, are more likely to marry immigrants: among intermarried couples, about 30% of husbands and 41% of wives are second generation natives.

According to Table 1, relative to other groups. Hispanic and Asian native men and women are more likely to have immigrant spouses, who in turn are also more likely to be respectively Hispanic or Asian. Intermarried respondents are more likely to live in metropolitan areas with higher share of low skill immigrants. Intermarried native men are more likely to have graduate degrees, earn higher wages and live in higher income households in metropolitan areas than their endogamously married counterparts. Intermarried native women are less likely to be employed, more likely to be high school dropouts, earn lower wages, have lower household income. Compared to native wives, immigrant wives are on average less educated and less likely to work for pay, but those who are employed earn higher wages than native women. About 23% arrived before age 10, 24% arrived age 10-19, and the rest arrived aged 20 and older. Around 46% of

[14] Respondents born in Puerto Rico, the US territory, are also considered immigrants.

immigrant wives are not US citizens. Compared to their native counterparts immigrant wives are more likely to have at least one child in the household. Among immigrant husbands of native women there are more men with no high school diploma and men with graduate degrees than among native husbands of native women. Immigrant husbands are younger and on average they earn higher wages than native husbands.

We also analyze time use of immigrants. Among immigrants, 17% of men and 19% of women are intermarried to native spouses. Intermarriage rates vary by region of immigrants' origin.[15] 59% or men and 64% of women from English-speaking developed countries are married to natives, but only around 5% of immigrants from India, Bangladesh, and Pakistan are married to natives. Immigrant women from Asia are considerably more likely to be married to natives (27%) than men from Asia (9%).

We examine the following categories of daily time use, measured in minutes, where all categories include related travel:

(1) Chores: includes cooking, cleaning, laundry, interior and exterior home repairs, maintenance and decoration, grocery shopping, outdoors and vehicle care, household organization and planning, financial management such as paying bills. [16]

(2) Work: includes formal and informal income generating activities, work-related social time, job search and commute[17].

(3) Total work=chores + work.

In defining 'chores' we tried to capture activities that people like to avoid when they can afford to, as in Grossbard, Gimenez and Molina (2014). However, some elements of

[15] The various regions of origin can be found in Appendix 1.

[16] ATUS codes: 02 (except 0206) + 070101+1802+180701.

[17] ATUS codes: 05+1805.

household production, such as house decoration or cooking, can be enjoyable and thus at the margin they may not differ from leisure or may even be preferred to other leisure activities. Some may consider other activities, not included in our definition, as chores, such as non-grocery shopping and use of certain professional services such as banking or legal services. Our definition of work excludes human capital investment activities (education) and job search, i.e. potentially work-related activities. Among non-employed individuals, 12% of men and 4% of women report some work activities, and these men and women worked on average 214 min and 169 min on survey day.

3.2 Econometric Strategy

We estimate OLS models, even though OLS models don't establish causality. [18] Our main goal is to establish whether for natives intermarriage to immigrants is associated with less work, or more work. In the discussion we tie our analysis to the arguments presented in Section 2. We use the following notations: N stands for native, M stands for immigrant, NN for marriages between native men and native women, MN between immigrant men and native women and NM between native men and immigrant women (the first letter represents the man; the second the woman).

In the case of native respondents *i* married to a spouse *j*, who is either native or immigrant, we estimate the following model:

[18] We considered estimating Instrumental Variable (IV) models, with a first step estimating individual likelihood of being intermarried, but found it difficult to identify valid instruments.

$$Y_{ijt} = \alpha^{*} \, Spouse\ Immigrant_{ijt} + \boldsymbol{\beta} \, X_{ijt} + u_{ijt}, \qquad (1)$$

where *Y* are daily minutes the respondent spends in an activity (work, chores, or total work). The first subscript stands for the respondent, the second for the spouse. If the respondent is male, equation 1 helps us estimate the allocation of time of native men in either NM or NN marriages. If the respondent is female, the equation helps us estimate the allocation of time of native women in either MN or NN marriages.

When *Y* is own total work a positive coefficient of *'Spouse Immigrant'* in equation 1 indicates that the native respondent has an extra workload in a MN or NM marriage compared to a counterpart in a NN couple. Since we assume that people prefer leisure to work, a positive coefficient for own total work implies a penalty or price the native pays when married to an immigrant. In contrast, a negative coefficient of 'spouse immigrant' implies a premium benefiting the intermarried native respondent relative to what his or her time use would be in a comparable all-native NN marriage.

Y could stand for 'chores'. To the extent that these represent activities that people would prefer to avoid a premium (penalty) for being in an intermarriage may also be reflected in a negative (positive) coefficient of *'Spouse Immigrant'* in equation 1 when *Y* is defined as own chores.

A respondent could also be an individual *j* who is either a native or an immigrant married to a native *i*, as in model 2:

$$Y_{jit} = \alpha^{*} \, Immigrant_{jit} + \boldsymbol{\beta} \, X_{jit} + u_{jit}. \qquad (2)$$

We assume that a native is better off if their spouse spends more time at chores, paid work or overall total work. Therefore, a positive coefficient on *'Immigrant'* in equation 2

may be a premium to a native individual in a NM or MN intermarriage in comparison to what they would get in a NN marriage.

X is a vector of human capital, demographic and household characteristics that may affect an individual's time allocation, productivity, or preferences. We present regressions first with a restricted and then with a full set of controls. The restricted set of controls includes day (Friday, Saturday, Sunday, holiday), age, age-squared, respondent's ethnicity (black, Hispanic, Asian), education (no high school, some college, college, graduate, relative to high school), survey year and state. [19]

The full set of controls also includes spouse's characteristics (spouse's age, age-squared, ethnicity and years of schooling). It is important to include both spouses' education, age and ethnicity, because they affect preferences, bargaining power in the household, job market opportunities, and marriage market opportunities (see Grossbard-Shechtman and Neuman 1988). Vector *X* also includes the following household characteristics (the number of children age 0–2, 3-7, 8-17,[20] presence of another adult age 18–69, presence of an elderly person age 70+, and log income of other household members defined as total household income minus the respondent's labor earnings. Furthermore, *X* includes characteristics of the location: metropolitan residence, log of the share of low skill immigrant population in state, and state median income. The state's share of low skill immigrants (i.e. without college education) is included because it captures the price and availability of household help, which in turn is likely to affect time

[19] Survey year dummies account for social and economic trends over time. Possible state-specific factors of relevance include (other) local cultural norms, marriage laws, other indicators of the price of household help, and geographic dimensions.
[20] Children can be viewed as exogenous in our daily time use analysis.

spent in chores. [21] ATUS weights are used in order to examine a typical day of the week. Errors are clustered by state.

We examine interactions of intermarriage status with spouse's citizenship (US citizen or not), region of origin (western English-speaking countries vs other countries), and age at arrival in the US (arrived age 0-9, age 10-19, or age 20+). Differences by citizenship may be meaningful because having citizenship implies better job market opportunities. Language in the country of origin matters because immigrants from non-English speaking countries may face inferior job market options and need more assimilation. Age at arrival may be a proxy for whether the immigrant speaks with an accent and how much assimilation they need.

Some of our regressions include interactions of 'spouse immigrant' or 'immigrant' with second generation status of natives. In one of our models, we distinguish between four types of intermarriages: 3+ generation native and immigrant, 2d generation native and immigrant from same region, and 2d generation native and immigrant from a different region, relative to native-native. We assign parental region of origin to second generation natives.[22]

We also estimated Tobit regressions in the case of chores, given that a relatively large percentage of respondents (28% native men and 12% of wives of native men) report no chores on survey day. The Tobit results turned out overall similar to OLS results, so we only report OLS results.

[21] The state's share of low skill immigrants is computed yearly from the corresponding ACS 2003-18. Since the distribution of immigrants by state is skewed, we use the log of this share as our control variable. The share of low skill immigrants ranges between 0.4% and 15.6%, with an average of 5.7%.

[22] Immigrants whose parents each came from a different region of origin (fewer than 5% observations) are assigned to the mother's country of origin, and if missing, then father's origin.

We also estimate the equivalent of equations 1 and 2 for immigrants. In this case the right-hand-side variables of interest are 'spouse native' and 'native'. This allows us to establish whether the immigrant pay an 'assimilation price' when marrying a native relative to their hours of work (including chores) if they are in an intermarriage MN or NM relative to what these hours would be in a MM marriage with another immigrant.

Even though our models don't establish causality we mostly assume that intermarriage preceded decisions regarding time allocation. However, we recognize that it is also possible that time use decisions influenced individual or family decisions regarding choice of mate. Furthermore, unobserved factors such as traditionalism may simultaneously affect likelihood of intermarriage and time allocation to work and chores.

4. Regression results

OLS coefficients of time use on 'spouse immigrant' are presented in Tables 2A and 3A, comparing native men and wives of native men in either NN or NM marriages, and Tables 2B and 3B comparing native women and husbands of native women in either NN or MN marriages. The same tables also include coefficients of time use on 'immigrant' in the case of spouses of native respondents. In Table 4 we switch to comparisons of time use by immigrants in MM marriages and intermarriages with natives.

Natives in NN versus NM marriages. The model in Panel A only includes controls for respondents' traits. It can be seen that immigrant wives of native men work less in the labor force (col 4) and 25 minutes more at chores (col 5). In total they work about the same as native women in NN marriages. To the extent that working at chores affects wellbeing negatively, immigrant wives are worse off compared to native wives married

to natives. Native men's allocation of time does not vary by intermarried status (cols. 1 to 3). In Section 2 we assumed that individuals would prefer to work less themselves while benefiting from more work (in chores, and total work) being performed by their spouse. In that sense, native men seem to be better off when intermarried.

The model in Panel B includes the full sets of controls (controls were added for spouse's and family characteristics).[23] It can be seen that on average husbands of immigrants spend about 13 min more in paid work than their counterparts in NN marriages (col. 1) and that immigrant wives in MN marriages still spend 25 min more in chores than native wives in NN marriages (col. 4). They allocate less time to paid work than native wives, but the difference is no longer significant statistically.

Panels C-E in the two tables present coefficients on the interaction term 'Spouse Immigrant' with a number of immigrant's characteristics.

It can be seen from Panel C that native men's allocation of time does not vary across type of marriage (NM vs NN) if the immigrant wife is a *US citizen* (cols 1 to 3) but immigrant wives with citizenship do 17 minutes more chores and have a heavier workload (23 more minutes in total work) compared to native women in NN marriages. However, if the wife is not a US citizen, it is the husband rather than the wife who has a heavier workload compared to NN marriages: in a NM marriage native men spend 35 more minutes in the labor force and 18 minutes less at chores, with their overall workload 17 minutes higher. Native men are worse off in terms of total workload but better off if avoiding chores is important to them. Non-citizen immigrant wives spend 34 minutes more in chores and 48 minutes less in the labor force with a somewhat lighter workload

[23] Full results for Tables 2A and 2B Panel B can be found in Appendix 2A and 2B. Other full regression results are available upon request.

than native women (although the coefficient on total work is not statistically significant). These women are worse off than native women in NN marriages if avoiding chores makes people happy. It appears that wives who are legal immigrants are paying a higher price when marrying a native relative to their non-citizen counterparts. One possible explanation for this contrast between citizens and non-citizens is that the most valuable assimilation services are related to the labor market- such as improvement in language skills and access to the labor market opportunities through spouse's network-- so women who work for pay benefit more from these spousal services, whereas non-citizens are often unable to participate in the labor force. In marriages between native men and non-citizen immigrant women native husbands seem to pay a price in terms of extra paid work. They may not consider this as price if they are more traditionally-minded; intermarriage to a non-citizen may have selected men who prefer more traditional gender roles.

From the first line of Panel D we learn that both husbands and wives in couples consisting of native men and women who immigrated from English-speaking countries (Canada, UK, Australia and New Zealand) allocate their time the same way as NN couples. However, husbands of women who immigrated from non-English speaking countries spend 17 more minutes at paid work, while their total work time does not increase significantly, whereas immigrant wives from non-English speaking countries spend 26 min more doing chores (col. 5). Since their hours at paid work are lower, their total workload is unaffected. It appears that compared to NN marriages NM marriages involving immigrant women from non-English speaking countries are more traditional, with husbands more active in the labor force and wives doing more chores. Women are

worse off and men are better off to the extent that women do more chores that men benefit from.

Coefficients reported in Panel E are based on regressions that include interactions between *spouse immigrant* and the immigrant's *age at arrival to the US*. Immigrant women who arrived as children and their native husbands are similar to all-native couples in terms of their total work and time spent on chores (cols 1 to 6). Women who migrated to the US between the ages of 10 and 19 also have an allocation of time similar to that of native women in NN marriages, but their native husbands are possibly more traditional as they work less at chores and more in the labor force (cols). As for immigrant women who arrived after age 19, they work 40 minutes more at chores than women in NN marriages (col. 5). This is consistent with a competitive marriage market model and a lesser need to assimilate via intermarriage on the part of immigrants who grew up in the US are less in need of assimilation via intermarriage than immigrants who arrived at a later age.[24]

Panel F makes a distinction between three categories of natives: 3+ generation native (in the US for at least 3 generations), 2d generation natives whose parents immigrated from the same region as the immigrant spouse, and 2d generation natives whose parents immigrated from a different region. Based on our sample of 2094 men and 2431 women, most second generation natives are married to other natives (who can themselves be second generation natives), about 15% of men and 18% of women are married to immigrants of the same origin, and around 5% of men and women are married to immigrants of different origin.

[24] Wage statistics show that among those who work for pay wages are on average 4% higher for immigrant wives in this group than for native wives, although labor force participation is 6% lower.

The coefficients in the first row of Panel F suggest that 3rd generation native men and 2d generation natives married to women of the same origin allocate their time like men in NN marriages. However, immigrant women married to native men of 3+ generation spend more time in chores and less in paid work than native women, and about the same time in total work. Immigrant wives of second-generation native men of the same origin work more than native wives: 51 min more paid work or 41 min more total work. These may be couples sharing the same immigrant culture and their traditions may place more emphasis on traditional gender roles. It may also facilitate male domination over women, accounting for the higher total workload of these immigrant women. Desire to perpetuate traditional cultural norms may explain both this type of intermarriage and allocation of time. [25] Both spouses work less in marriages of 2d generation native men and immigrant women of different origin. Men in these couples work 53 minutes less for pay and do overall 45 min less total work. Women in these couples spend 1h14min less working for pay, or 57min less per day than native wives.

Natives in NN versus MN marriages. Results comparing couples with two natives (NN) and those with a native woman and an immigrant man (MN) are presented in Table 2B. Native women's time allocation is the same in intermarriage as in marriage to a native (cols 1 to 3, Panels A to E). Immigrant husbands of native women perform fewer household chores than native men (col. 5), and have about the same total workload (col 6). (Panel D, col. 5). Much of this effect is driven by immigrant men who arrived after

[25] Celikaksoy et al. (2006) report on educational comparisons between marriages of immigrants to Denmark from Pakistan and Turkey and the Danish-born grown children of immigrants from these seem countries. The evidence is consistent with immigrant parents of Danish natives placing a premium on their traditions being practiced by the next generation.

age 19: they spend 23min more in paid work and 18min less in chores per day than native men.

From Panel F we learn that immigrant men married to second generation native women whose families migrated from the same regions work 34 min more in chores and 34 min less in the labor force, relatively to men in NN marriages. For other types of MN intermarriages men's time allocation is the same as in NN marriages. As for second generation native women married to immigrants from different origin their total workload is 30min higher than that of their counterparts married to natives

Summing up: comparing NM, MN and NN marriages. There is a contrast between the results we obtained for immigrant women married to native men (Table 2A) and immigrant men married to native women (Table 2B). Relative to their native counterparts in NN marriages immigrant women in NM marriages spend more time at chores whereas immigrant men in MN marriages spend less time at chores. The results for immigrant women are consistent with a competitive marriage market analysis: in a few instances intermarried immigrant wives appear to pay a price when intermarried; native men may get a premium in the form of more chores performed. In contrast, intermarried immigrant husbands seem to get a premium: less time at chores and no extra total work, which amounts to native women paying a price when marrying immigrants (since we assume that time one spouse spends in chores benefits the other).

Summing up in the case of intermarriages with second generation native. Results in Panel F of table 2A are consistent with the competitive marriage market analysis. Immigrant wives married to sons of immigrants from the same region pay even more of a penalty than other immigrant wives: they do almost an extra hour of chores and their total

workload is considerably higher when compared to NN women. Immigrant men from the same type of marriage get even more benefits from intermarriage, compared to native men: they save 34 min of chores (this is triple the price that all native women pay in terms of foregone husband chores according to Panel B). This case fits into a scenario in which gender roles in the countries of origin of both the immigrant and the wife's parents are more traditional. In marriages between second-generation natives and immigrants, women are worse off, whether they are the native or the immigrant. They either work harder at chores or they obtain fewer minutes of a husband's chores.

Whether second generation or 3+ generation, native women don't seem to be able to exploit their competitive marriage market advantages the way native men do. The culture shared in intermarriages between immigrants and second-generation natives growing up in families from the same region may be particularly conducive to male domination in marriage. It could also be that the female migrants stand to lose more if their marriages end than the male immigrants, especially if they don't have as many marketable skills allowing them to succeed in the labor force or in business.

Natives; Dual earners and couples with male earners. It follows from bargaining theories of intra-allocation of resources that women will be better able to further their personal interests in marriage when they have paid jobs in the labor force, as their income may help them bargain for less of a total workload. They may also enter arrangements involving less of their own chores and more chores on the part of their husband. This conclusion does not follow from competitive marriage market analysis based on GS84 where an individual's value of time is not determined in a two-way bargaining within a couple but by all factors influencing demand and supply of household production time

benefiting a spouse (see Grossbard 2015). The models presented in Tables 2A and 2B were re-estimated separately for couples with two earners (dual earners, Tables 3A and 3B, panels A-D) and male-earner couples (panels E to H).

A major lesson from comparing the panels for dual earners and male-earner couples in Table 3A is that the excess total workload of immigrant wives in male earner couples is larger than that of their counterparts in dual-earner couples, which reinforces the bargaining story. For example, wives who are US citizens do 48min of extra daily work if they are not employed in the labor force (Panel E) but only 21min if they are employed. Two groups of wives do the most extra work: adult immigrants and those married to second generation native men of the same origin; these wives contribute more than 1h of extra daily work compared to native wives. Second generation native women married to immigrants who came from the same region as their parents work substantially more than other women, whether in the labor force (Panel D) or not (Panel H). Two groups of men work less in intermarriage than in endogamous marriage: those who marry immigrants from English speaking countries (44min less total work), and those married to women who migrated as young children (38min less total work). This is not the case among dual-earner couples

In contrast, based on Table 3B, it seems that native women married to immigrants are better off if they are in male-earner couples (Panels E to H) than if both are employed (Panels A to D). Native wives in dual earner couples are worse off being married to an immigrant than they would be in a NN marriage. They tend to spend more time in chores and total work when married to immigrants, although the coefficients are not always statistically significant. For example, working wives of US citizens spend 21min extra in

total work, wives of non-US citizens spend 15min more in chores, and wives of men who migrated age 10-19 spend 20min more in chores. Furthermore, their immigrant husbands tend to spend less time in chores and total work than native men, although the coefficients are rarely statistically significant. For instance, immigrant husbands who married native women whose parents immigrated from the same region work 39 minutes less at chores.

Things don't look as bad for intermarried native women in single earner couples. On average they spend 23-26min less in chores than women in endogamous marriages. In particular, native women enjoy more leisure in intermarriage when married to men from non-English-speaking countries or to men who migrated before age 20. Second generation native women married to immigrants of different origin enjoy the most leisure relative to their counterparts in NN marriages: 48 extra min per day. On the other hand, native wives of immigrants from English speaking countries and adult immigrants gain no extra leisure from intermarriage.

In sum, we learn from the four tables so far that immigrant women tend to pay a price when intermarried with natives, but it is not as bad if they are employed. Immigrant men tend to benefit when intermarried with natives but that is limited to dual-earner marriages. Being employed protects the wellbeing of immigrant women married to natives when compared with native women in NN marriages. To avoid the pitfalls of being married to an immigrant (a higher workload for them, a lower workload for the husbands), native women may want to find match with immigrants willing to be the sole earner.

Immigrants in intermarriages and all-immigrant marriages.

So far, this analysis has focused on a comparison between intermarriages and all-native marriages. Next, we examine how intermarried immigrants fare in terms of paid work and chores compared to endogamously married immigrants. Table 4 offers a comparison of time use in intermarriages between natives and all-immigrant marriages. An advantage of analyzing a sample of immigrants is that we can now control for other immigrant characteristics as well as culture of the country of origin. We use female labor force participation in the country of the immigrant's origin as indicator of culture / gender equality. Blau et al. (2020) have shown that first-generation immigrants, both women and men, from source countries with more gender equality allocate tasks more equally.

Our samples of immigrants consist of 6,116 men and 6,864 women. Mean values are in Appendix 3. Intermarried immigrant men and women live in smaller households, earn higher wages, have fewer children, and their household income is higher. They are more likely to be white, US citizens, come from English speaking country and have spent more years in the US than non-intermarried immigrants.

Table 4 reports regression coefficients on 'spouse native' in regressions of time use for immigrants. Few of the coefficients are significant suggesting that being married to a native does not change the work behavior of most immigrants. Immigrant men and women work as much in intermarriage as they do in marriages with immigrants. One exception are men who marry second generation native women, in those marriages immigrant men work 25 min less in chores and thus enjoy more leisure. Men who are married to natives of 3+ generation spend 13min more in chores than other immigrants.

These findings are consistent with a competitive marriage market analysis: these men may be paying a price when intermarried.

Most immigrant women also do not increase their contribution to paid work or chores in intermarriage. One exception are women married to second generation natives of the same origin: these immigrant wives spend 28min more in paid work and 39min more in total work than their counterparts in MM marriages. They are thus worse off than similar women who marry other immigrants. This type of marriage is likely to stand out in terms of adherence to traditional gender roles. In contrast, immigrant men married to second-generation native women whose parents came from the same region are better off than those who marry other immigrants as they spend less time at chores.

Many women spend less time in chores and paid work in intermarriage, particularly, non-US citizens spend 16min less in chores, women who migrated as children spend 26min less in total work, and finally wives of second generation natives of different origin spend an hour less in paid work than their counterparts in MM marriage. It thus appears that even though immigrant women in NM intermarriage are worse off than their native counterparts in NN marriages, they are better off than other immigrant women married to immigrants.

The coefficients on female LFP suggest that if immigrant women come from countries with higher female labor force participation they are more likely to participate in the labor force and spend less time in chores in the US. For example, if the rate of female labor force participation is 10 percentage points higher in her country of origin the immigrant woman performs 10 minutes more paid work and 7min less chores.

Robustness check. We expand the definition of chores to broader household production that includes care as well. Care is the time spent in primary childcare, care of adults and pets. Appendix 4A and 4B present tables similar to Table 2A and 2B, but with new dependent variables in columns 2, 3, 5, 6. The conclusions are overall similar, although some estimates lack precision. Native men spend less time in chores and second-generation native men whose ancestry differs from that of their immigrant wives work less for pay. On average, compared to their native counterparts, immigrant women spend 34 min longer in household production and 13 min longer in total work. Extra workload is particularly large for women who are US citizens, adult immigrants, and spouses of second-generation natives of the same origin.

Native women's time allocation does not vary substantially with intermarriage, although second generation native wives work more overall if their husbands are of different ancestry. Immigrant husbands of native women spend 17min less in household production than native husbands, and spouses of second-generation native wives show the most traditional allocation of time: they work 35 min more for pay and 45 min less in household production, compared to native men.

5. Conclusions

In this paper our goal has been to assess whether there are gaps in the time use of individual men and women that are associated with intermarriage between natives (U.S. born respondents) and immigrants. Three uses of time were examined: time at work, time doing household chores and the sum of those two (total workload). The time use of

all parties involved were compared: natives and their immigrant spouses compared to natives in all-native marriages, and immigrants married to natives compared to immigrants in all-immigrant marriages.

Based on OLS regression models we documented gaps in the amount of time that natives and immigrants spend on particular types of work as a function of their intermarried status. We distinguished immigrants by citizenship, language in country of origin (English or not) and age at immigration. Natives were separated according to the number of generations their families have lived in the U.S. We found that when intermarried to a native some immigrants pay an assimilation price in one or more of the following ways: compared to their counterparts in all-native marriages they have a higher total workload, they do more chores, or they benefit from fewer hours of chores performed by their native spouse. Most of the immigrants we identified as paying such an assimilation price were immigrant women. For instance, in male-earner couples immigrant wives do 40min more chores per day than their counterparts in a native-native couple. Immigrant wives married to second generation native men from the same origin pay the highest assimilation price as they contribute over an hour more paid work and chores per day compared to native wives, while their husbands do no extra work. In terms of chores work, one spouse's gain is the other spouse's loss. Some native men in man-breadwinner families benefit from intermarriage by gaining leisure, as the case with husbands of women who arrived to the US as children: they spend around 40 min less time in total work per day than if they were married to natives.

In contrast, very few immigrant men pay a price for assimilation when married to native women. Many immigrant husbands spend less time in chores than native husbands,

particularly men who migrated as adults and those married to second generation natives of the same origin. The latter group, husbands of second-generation wives spend substantially less time (25min less) in chores if intermarried, even when compared to most other immigrant men with immigrant spouses. More typical intermarried immigrant men, those married to 3rd+ generation natives, do 13 min more chores per day than an average immigrant man. Furthermore, compared to their native counterparts in all-native marriages immigrant men also benefit from the fact that their native wives work 21-28min longer per day (this is limited to the case of dual-earner couples).

It thus seems that to most immigrant women intermarriage to a native involves an assimilation price. The opposite is the case for many immigrant men: they tend to benefit when intermarried to natives in terms of one or all of the criteria defined above. It seems as if the native women who marry them are paying a price, relatively to what would be their situation in an all-native marriage. Our findings for immigrant women are consistent with a competitive marriage market analysis and the value of intermarriage to immigrants. In this case it seems as if (1) price mechanisms function in marriage markets and (2) these prices are possibly associated with the relative workloads of men and women with different traits.

In contrast, for immigrant men intermarriage does not appear to be costly. To some degree, native women seem to 'pay' them when marrying them rather than native men. In both cases of intermarriage, the women are paying a price. This could be the result of men's ability to limit the value of native women in marriage markets. One possibly mechanism facilitating such limits is that intermarriages between immigrant men and native women may be more influenced by traditional gender roles allowing male

domination or male privileges. Such power helps men in negotiating work arrangements that privilege them, in this case at the expense of native women.

This ‘male dominance’ scenario also helps interpret results comparing all-native marriages to intermarriages between second-generation natives married to immigrants from the same region their parents came from. Immigrant wives married to sons of immigrants from the same region pay even more of a penalty than other immigrant wives: they do almost an extra hour of chores per day and their total workload is considerably higher when compared to women in all-native women. In contrast, immigrant men married to native daughters of immigrants from the same region get more benefits from intermarriage than those married to native women three or more generations in the US. Both findings are consistent with gender roles in these common regions of origin being more traditional. In marriages between immigrants and second-generation native women are worse off, whether they are the native or the immigrant. They either work harder at chores or they obtain fewer minutes of a husband’s chores.

We have taken an original look at a previously understudied question: the allocation of time in married couples and how it is associated with intermarriage between natives and immigrants. Our research has been exploratory and carries multiple implications for future research. Possible directions that can benefit from this research include the study of immigrant/native intermarriage and outcomes of household production, such as children’s success and nutritional value of household-produced meals as a function of whether. Intermarriage may also carry implications for the type of job that individuals work at in the labor force and stated happiness level. More could be explored in terms of whether our results differ by education level or geographical region. The link between

intermarriage and time spent at chores and work could also be expanded to study couples' financial issues since intra-marriage financial transfers are often related to spouses' allocation of time. Also, the measurement of chores and non-marital cohabitation deserve more attention.

Further research could also explore other ways that immigrants may pay a price when intermarried with natives, such as having more (or fewer) children than they would prefer or by marrying down in terms of education.

References

Basu, Sukanya. 2015. Intermarriage and Labor Market Outcomes of Asian Women. *Economic Inquiry* 53(4): 1718–1734.

Basu, Sukanya. 2017. Household labor supply and intermarriage of immigrants: differences by gender. *IZA Journal of Development and Migration* (2017) 7:8 DOI 10.1186/s40176-017-0093-3

Beblo, Miriam, Luise Görges, and Eva Markowsky. 2020. Gender Matters in Language and Economic Behaviour. *Labour Economics*, Volume 65. August. https://doi.org/10.1016/j.labeco.2020.101850

Becker, Gary S. 1965. A theory of the allocation of time. *Economic Journal ,75*, 493-515.

Becker, Gary S. 1973. A Theory of Marriage: Part I. *Journal of Political Economy* 81:813-846.

Becker, Gary S. 1981. *A treatise on the family*. Cambridge: Harvard University Press.

Blau, Francine. 2015. Immigrants and gender roles: assimilation vs. culture. *IZA Journal of Migration*, Article 23. http://izajom.springeropen.com/articles/10.1186/s40176-015-0048-5

Blau, Francine, Lawrence Kahn, Matthew L. Comey, Amanda Eng, Pamela A. Mayerhofer, and Alexander Willen. 2020. Culture and Gender Allocation of Tasks: Source Country Characteristics and the Division of Non-market Work among US Immigrants. NBER Working Paper No. 26931. (DOI): 10.3386/w26931. https://www.nber.org/papers/w26931

Bonke J, Deding M, Lausten M, and L. Stratton. 2008. Intra-household specialization in housework in the United States and Denmark. Soc Sci Q. 89(4):1023–43.

Celikaksoy, Aycan, Helena S. Nielsen and Mette Verner. 2006. Marriage migration: just another case of positive assortative matching? *Review of Economics of the Household* 4(3): 253-275.

Chi, Miao. 2015. Does intermarriage promote economic assimilation among immigrants in the United States? *International Journal of Manpower* 36(7):1034-1057. https://doi.org/10.1108/IJM-05-2013-0112

Furtado, Delia and Nikolaos Theodoropoulos. 2009. I'll marry you if you get me a job: Marital assimilation and immigrant employment rates. *International Journal of Manpower 30*(1/2): 116-126.

Furtado, Delia and Nikolaos Theodoropoulos. 2010. Why Does Intermarriage Increase Immigrant Employment? The Role of Networks *The B.E. Journal of Economic Analysis & Policy* 1(1), article 101.

Gay, Victor, Daniel L. Hicks, Estefania Santacreu-Vasut, and Amir Shoham 2018. Decomposing culture: An analysis of gender, language, and labor supply in the household. *Review of Economics of the Household* 16(4): 879-909. https://doi.org/10.1007/s11150-017-9369-x

Grossbard, Shoshana. 2015. *The Marriage Motive*: *A Price Theory of Marriage*. New York: Springer.

Grossbard, Shoshana. 2020. Analyzing intimate partner violence with the Work-In-Household Model. Working paper, San Diego State University, March 2020.

Grossbard, Shoshana, Jose Ignacio Gimenez and Jose Alberto Molina. 2014. Racial Intermarriage and Household Production. *Review of Behavioral Economics* 1(4):295-347.

Grossbard-Shechtman, Amyra. 1984. A Theory of Allocation of Time in Markets for Labor and Marriage. *Economic Journal* 94(4): 863-882.

Grossbard-Shechtman, Amyra and Shoshana Neuman. 1988. Women's Labor Supply and Marital Choice. *Journal of Political Economy* 96:1294-1302.

Kantarevic, Jasmin. 2004. Interethnic marriages and economic assimilation of immigrants. IZA discussion paper series No. 1142.

Marcén, Miriam and Marina Morales. 2019. Gender division of household labor: How does culture operate? GLO Discussion Paper No. 373.

Mincer, Jacob. 1963. Market Prices, Opportunity Costs, and Income Effects. In *Measurement in Economics* edited by C. Christ. Stanford, CA: Stanford University Press.

Meng, Xin and Robert G Gregory. 2005. Intermarriage and the economic assimilation of immigrants. *Journal of Labor economics 23*(1):135-174.

Nottmeyer, Olga. 2014. Relative labor supply in intermarriage. *IZA Journal of Migration* 3(1):1-27.

Stratton L. 2005. Specialization in household activities within cohabiting versus married households. Mimeo, Available at http://paa2005.princeton.edu/papers/50047.

West, Candace and Don H. Zimmerman. 2009. Accounting for Doing Gender. *Gender and Society* 23(1): 112-122.

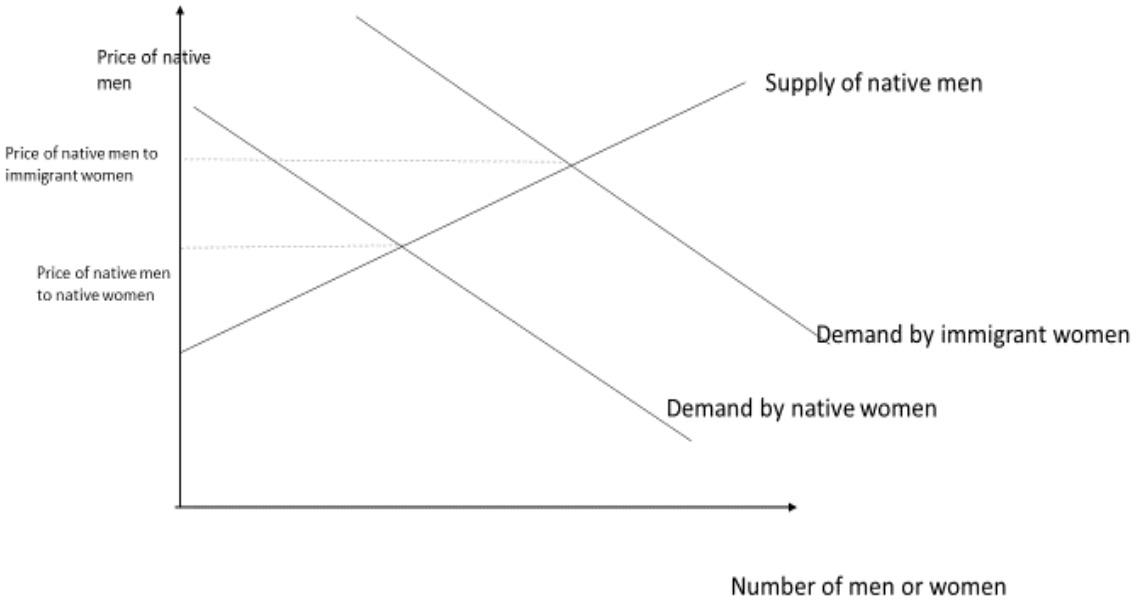

Figure 1. Superimposed marriage markets for (a) native men and native women and (b) native men and immigrant women

Table 1. Sample means, married respondents aged 20-60, ATUS 2003-18.

	Native men		Wives of native men		Native women		Husb's of native women	
	Wife native	Wife immig	Native	Immigrant	Husb native	Husb immig	Native	Immigrant
Age	*43.7*	*42.7*	*41.9*	*39.4*	41.9	38.4	43.7	40.9
Black	*0.077*	*0.076*	0.068	0.038	*0.068*	*0.064*	*0.077*	*0.082*
Hispanic	0.051	0.259	0.049	0.390	0.049	0.388	0.051	0.486
Asian	0.006	0.030	0.007	0.221	0.007	0.040	0.006	0.079
No high school degree	*0.053*	*0.073*	0.038	0.088	0.038	0.087	0.053	0.164
High school degree	0.305	0.223	0.271	0.234	0.271	0.258	0.305	0.258
Some college	*0.261*	*0.247*	0.286	0.239	0.286	0.252	0.261	0.184
College degree	*0.246*	*0.257*	*0.268*	*0.279*	0.268	0.241	0.246	0.218
Graduate degree	0.135	0.200	*0.137*	*0.161*	*0.137*	*0.161*	0.135	0.176
Parents immigrants (native sp)	0.024	0.196	0.023	0.218	0.021	0.285	0.024	0.254
One parent immig (native sp)	0.036	0.106	0.036	0.111	0.038	0.127	0.037	0.134
Metropolitan residence	0.789	0.937	0.792	0.931	0.792	0.922	0.789	0.924
Presence of own children	*0.55*	*0.59*	0.55	0.63	*0.55*	*0.69*	0.55	0.64
Number of children age 0-17	1.12	1.13	*1.10*	*1.23*	*1.10*	*1.40*	1.12	1.33
Adult age 18-69 present	*0.20*	*0.19*	0.20	0.15	*0.20*	*0.21*	*0.20*	*0.22*
Elderly age 70+ present	0.015	0.031	*0.019*	*0.023*	*0.019*	*0.017*	0.015	0.042
Low skill immigrant share	0.083	0.121	0.084	0.128	0.084	0.126	0.083	0.129
Household income	96,881	100,027	*95,610*	*96,408*	95,610	88,676	*96,881*	*96,828*
Employed	*0.897*	*0.892*	0.743	0.633	0.743	0.702	*0.897*	*0.914*
Spouse employed	0.729	0.648	*0.885*	*0.883*	*0.885*	*0.895*	*0.729*	*0.662*
Wage, if >0	31.4	33.2	24.6	26.6	*24.6*	*25.2*	*31.4*	*31.3*
Sp. wage, if >0	*26.9*	*27.7*	31.8	35.1	31.8	29.8	26.9	28.5
Non-US citizen (immig sp)		0.446		0.483		0.475		0.503
English-sp country (immig sp)		0.111		0.117		0.138		0.140
Arrived age 0-9 (immig sp)		0.235		0.234		0.261		0.247
Arrived aged 10-19 (immig sp)		0.209		0.248		0.310		0.316
Arrived aged 20+ (immig sp)		0.445		0.518		0.291		0.437
Weekend day	*0.296*	*0.297*	*0.295*	*0.300*	*0.295*	*0.315*	0.296	0.336
Sample sizes by origin								
Canada,UK,Australia,N Zealand		144		190		206		182
Eastern Europe, FSU, Israel		81		83		55		49
Western Europe		120		165		140		135
China, other Asia		282		289		100		75
India, Bangladesh, Pakistan		25		28		29		29
Turkey, M.East, N. Africa		70		59		71		48
Mexico		267		283		384		298
Central & S.America		260		282		283		213
Africa,Caribbean Islands		69		69		110		109
Total	26,964	1,318	29,906	1,448	29,906	1,378	26,964	1,138
Time use, daily minutes								
Work	*357*	*357*	227	200	*228*	*219*	*357*	*354*
Chores	91	85	151	174	*151*	*157*	131	77
Total work	*448*	*442*	*378*	*374*	*378*	*376*	448	431

Note: *Italics* = the difference is not statistically significant at 5% level by intermarried status. Survey weights are used.

Table 2A. Time use of native men and their wives: intermarriages with immigrants versus all-native marriages

	NATIVE MEN			WIVES OF NATIVE MEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
A. Respondent's controls						
Spouse/self immigrant	-0.8	-3.9	-4.7	-26.8	24.5	-2.3
	[6.6]	[4.1]	[5.4]	[15.0]*	[9.3]**	[8.8]
R^2	0.3	0.07	0.24	0.19	0.04	0.16
B.Full set of controls						
Spouse/self immigrant	13.1	-5.3	7.8	-20.6	25.3	4.7
	[7.3]*	[4.3]	[7.1]	[14.5]	[9.2]***	[8.7]
R^2	0.31	0.07	0.25	0.22	0.06	0.17
C. By immigrant citizenship status						
US citizen	-6.4	5.8	-0.6	6.4	16.9	23.3
	[10.3]	[5.2]	[9.6]	[15.3]	[9.6]*	[8.8]**
Not US citizen	35.4	-17.9	17.5	-47.8	33.8	-14
	[10.5]***	[5.4]***	[10.3]*	[16.5]***	[10.6]***	[13.4]
R^2	0.31	0.07	0.25	0.22	0.06	0.17
D. By immigrant country						
English speaking	-7.7	0.6	-7.1	-20.6	23.1	2.5
	[24.1]	[12.4]	[22.6]	[23.5]	[21.6]	[20.0]
Non-English sp.	16.6	-6.2	10.4	-20.6	25.7	5.1
	[8.9]*	[4.8]	[7.9]	[14.8]	[9.3]***	[8.6]
R^2	0.31	0.07	0.25	0.22	0.06	0.17
E. By immigrant age at arrival						
Arrived age 0-9	2.5	5.8	8.2	-25.6	9.3	-16.3
	[15.5]	[10.4]	[13.4]	[24.3]	[15.9]	[11.8]
Arrived aged 10-19	31.1	-20.1	11	4	9.5	13.4
	[14.9]**	[5.9]***	[14.1]	[12.5]	[8.6]	[11.1]
Arrived aged 20+	10.8	-4.3	6.5	-30.2	39.9	9.7
	[10.6]	[4.6]	[10.2]	[20.5]	[10.9]***	[14.4]
R^2	0.31	0.07	0.25	0.22	0.06	0.17
F. By second generation status						
3+gen native + spouse/self immigrant	16.5	-3.4	13.1	-22.4	19.9	-2.5
	[10.2]	[5.4]	[8.3]	[16.9]	[7.9]**	[12.1]
2nd gen native + immigrant same origin	2.7	-13.9	-11.2	-10.2	51.4	41.3
	[22.4]	[8.7]	[21.1]	[18.9]	[19.7]**	[12.1]***
2nd gen native + immigrant diff origin	-53.1	7.8	-45.3	-74.3	17.6	-56.7
	[26.3]**	[15.2]	[22.0]**	[25.6]***	[10.6]	[20.9]***
R^2	0.3	0.07	0.24	0.21	0.06	0.17
N	28,282	28,282	28,282	31,354	31,354	31,354

Notes: The table contains coefficients from OLS regressions with the following set of controls. Panel A: year, state, day (Friday, Saturday, Sunday, holiday), age, age-squared, race/ethnicity (black, Hispanic, Asian), education (no high school, some college, college, graduate, relative to high school). Panel B and the rest of panels: the number of children age 0–2, 3-7, 8-17, presence of another adult age 18–69, presence of an elderly person age 70+, metropolitan residence, spouse's age, age-squared, race, years of schooling, indicators for second generation immigrant with one and two immigrant parents for respondents and spouse, log of the share of low skill immigrant population in state, log unearned income and state median income. ATUS weights are used. Errors are clustered by state. Sample sizes are in the last row, the same in all regressions for men and for women.

***indicates significance at the 0.01 level, **at the 0.05 level, and *at the 0.10 level.

Table 2B. Time use of native women and their husbands: intermarriages with immigrants versus all-native marriages

	NATIVE WOMEN			HUSB OF NATIVE WOMEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
A. Respondent's controls						
Spouse/self immigrant	1.4	7.8	9.3	17.4	-12.5	4.8
	[13.7]	[6.2]	[10.8]	[11.3]	[4.0]***	[10.3]
R^2	0.19	0.04	0.16	0.3	0.07	0.24
B. Full set of controls						
Spouse/self immigrant	-4.3	5.3	1	11.9	-11.2	0.7
	[13.3]	[5.9]	[12.3]	[11.6]	[4.0]***	[10.4]
R^2	0.22	0.06	0.17	0.31	0.07	0.25
C. By immigrant citizenship status						
US citizen	-8.1	6.3	-1.8	16	-13.2	2.8
	[13.1]	[5.9]	[11.0]	[15.4]	[5.2]**	[15.6]
Not US citizen	0.1	4.2	4.3	7.8	-9.1	-1.3
	[16.4]	[7.9]	[16.1]	[14.4]	[7.4]	[14.3]
R^2	0.22	0.06	0.17	0.31	0.07	0.25
D. By immigrant country						
English speaking	22	-0.1	21.9	-5.6	-14	-19.6
	[23.8]	[8.4]	[20.1]	[16.5]	[5.7]**	[15.6]
Non-English sp.	-10	6.5	-3.5	15.6	-10.6	5
	[14.9]	[6.1]	[14.5]	[13.2]	[4.9]**	[11.9]
R^2	0.22	0.06	0.17	0.31	0.07	0.25
E. By immigrant age at arrival						
Arrived age 0-9	-12.9	3.2	-9.7	-7	2.6	-4.4
	[15.6]	[6.7]	[16.1]	[17.1]	[6.4]	[14.5]
Arrived aged 10-19	1.4	6.1	7.5	8.7	-11.5	-2.8
	[21.6]	[12.1]	[16.8]	[15.0]	[8.6]	[15.8]
Arrived aged 20+	-2.9	6	3.1	23.4	-17.9	5.6
	[14.8]	[6.1]	[13.2]	[13.7]*	[5.0]***	[13.1]
R^2	0.22	0.06	0.17	0.31	0.07	0.25
F. By second generation status						
3+gen native + spouse/self immigrant	-8.5	7.8	-0.7	4.4	-4	0.4
	[14.1]	[5.7]	[13.7]	[12.6]	[3.5]	[11.6]
2nd gen native + immigrant same origin	-1.2	4.6	3.5	35.1	-34.6	0.5
	[21.8]	[13.2]	[13.2]	[19.1]*	[8.9]***	[17.4]
2nd gen native + immigrant diff origin	8.2	11.9	20.1	39.4	-12.4	27
	[27.4]	[15.6]	[14.4]	[31.6]	[18.2]	[25.6]
R^2	0.21	0.06	0.17	0.3	0.07	0.25
N	31,284	31,284	31,284	28,102	28,102	28,102

Table 3A. Time use of native men and their wives; dual earner and male earner couples

	NATIVE MEN			WIVES OF NATIVE MEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
DUAL EARNER COUPLES						
A. By immigrant citizenship status						
US citizen	-7.3	4.6	-2.7	23.1	-2.3	20.8
	[10.8]	[4.4]	[10.6]	[17.0]	[9.9]	[10.9]*
Not US citizen	19.9	-10.9	9	1	6.7	7.6
	[13.0]	[8.3]	[13.3]	[18.1]	[7.9]	[18.6]
R^2	0.37	0.1	0.3	0.31	0.09	0.25
B. By immigrant country						
English speaking	21.3	1.1	22.4	-11.9	-7.1	-19
	[20.6]	[17.4]	[18.3]	[23.4]	[15.0]	[19.7]
Non-English sp.	0.6	-2.2	-1.6	17.9	3.1	20.9
	[9.9]	[4.0]	[9.3]	[13.1]	[8.5]	[10.5]*
R^2	0.37	0.1	0.3	0.31	0.09	0.25
C. By immigrant age at arrival						
Arrived age 0-9	31.2	-5.2	26	-14.6	-2.1	-16.7
	[15.6]*	[7.1]	[15.0]*	[32.1]	[16.4]	[19.0]
Arrived aged 10-19	-9.6	-11.6	-21.3	46.6	-9.2	37.3
	[15.3]	[6.8]*	[17.0]	[16.2]***	[11.0]	[15.2]**
Arrived aged 20+	-3.8	4.8	1	11.2	8.9	20.1
	[13.5]	[7.5]	[14.0]	[18.9]	[8.6]	[15.8]
R^2	0.37	0.1	0.3	0.31	0.09	0.25
D. By second generation status						
3+gen native + spouse/self immigrant	-1.4	-2.9	-4.3	1.3	-2	-0.7
	[12.3]	[5.4]	[10.2]	[15.1]	[7.7]	[11.1]
2nd gen native + immigrant same origin	27.7	-7.2	20.5	56.6	19.6	76.2
	[22.4]	[13.4]	[20.3]	[19.2]***	[13.3]	[19.2]***
2nd gen native + immigrant diff origin	-0.6	23.3	22.7	28.5	-7.8	20.7
	[32.0]	[23.7]	[28.6]	[37.0]	[18.5]	[28.7]
R^2	0.37	0.1	0.3	0.31	0.09	0.25
N	18,635	18,635	18,635	20,719	20,719	20,719
MALE EARNER COUPLES						
E. By immigrant citizenship status						
US citizen	-6.1	7.6	1.5	-2.5	50.6	48.1
	[20.7]	[7.7]	[21.5]	[2.8]	[15.2]***	[16.2]***
Not US citizen	56.2	-17.1	39.1	-4.1	38	33.9
	[19.4]***	[6.6]**	[19.0]**	[4.3]	[13.2]***	[12.2]***
R^2	0.37	0.11	0.31	0.03	0.07	0.07
F. By immigrant country						
English speaking	-30.7	-13	-43.7	-1.5	49	47.4
	[27.6]	[10.4]	[21.9]*	[4.0]	[50.0]	[50.1]
Non-English sp.	38.2	-5.2	33	-3.9	41.3	37.4
	[16.1]**	[5.6]	[14.5]**	[2.6]	[11.3]***	[10.8]***
R^2	0.37	0.11	0.31	0.03	0.07	0.07
G. By immigrant age at arrival						
Arrived age 0-9	-46	8	-38	-7.5	18	10.5
	[18.3]**	[9.3]	[19.1]*	[2.6]***	[23.2]	[22.9]
Arrived aged 10-19	88.5	-21.6	67	-6.9	16.8	9.9
	[28.7]***	[7.9]***	[24.7]***	[2.4]***	[11.7]	[12.7]
Arrived aged 20+	34.5	-6.2	28.3	-0.3	64.9	64.6
	[18.2]*	[6.5]	[16.5]*	[4.1]	[15.8]***	[14.8]***
R^2	0.37	0.11	0.31	0.03	0.07	0.07
H. By second generation status						
3+gen native + spouse/self immigrant	35.1	-1.9	33.1	-0.3	40.2	39.8
	[15.7]**	[6.6]	[14.8]**	[3.8]	[12.4]***	[12.2]***
2nd gen native + immigrant same origin	21.9	-25.2	-3.4	-11.6	75.9	64.3
	[34.6]	[10.5]**	[36.3]	[5.9]*	[37.0]**	[35.6]*
2nd gen native + immigrant diff origin	-27.1	-0.4	-27.4	-9.2	-23.7	-32.8
	[39.3]	[18.4]	[41.9]	[4.6]*	[30.3]	[30.8]
R^2	0.37	0.11	0.31	0.03	0.08	0.07
N	7,038	7,038	7,038	7,528	7,528	7,528

Table 3B. Time use of native women and their husbands; two types of couples

	NATIVE WOMEN			HUSB OF NATIVE WOMEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
DUAL EARNER COUPLES						
A. By immigrant citizenship status						
US citizen	11.4	9.9	21.3	9.7	-9.5	0.2
	[14.4]	[6.0]	[10.9]*	[20.2]	[8.3]	[19.6]
Not US citizen	-9.2	14.9	5.7	-13.2	-10	-23.3
	[18.1]	[7.7]*	[16.2]	[23.4]	[7.0]	[22.8]
R^2	0.31	0.09	0.25	0.37	0.1	0.3
B. By immigrant country						
English speaking	23.4	-6	17.4	-24.9	-10.3	-35.2
	[25.0]	[9.5]	[20.5]	[26.7]	[6.9]	[26.7]
Non-English sp.	-3.3	16.7	13.5	3.8	-9.6	-5.8
	[16.5]	[6.6]**	[13.3]	[21.4]	[6.4]	[18.9]
R^2	0.31	0.09	0.25	0.37	0.1	0.3
C. By immigrant age at arrival						
Arrived age 0-9	-9.2	11.9	2.6	-6.4	0.2	-6.3
	[21.7]	[8.3]	[19.3]	[20.7]	[8.6]	[17.4]
Arrived aged 10-19	11	19.7	30.7	-3.7	-9.9	-13.6
	[26.7]	[10.8]*	[19.4]	[26.9]	[10.1]	[24.1]
Arrived aged 20+	3.6	7.6	11.2	2.2	-15.1	-12.9
	[14.9]	[7.5]	[12.1]	[20.6]	[7.6]*	[19.4]
R^2	0.31	0.09	0.25	0.37	0.1	0.3
D. By second generation status						
3+gen native + spouse/self immigrant	-4.2	13.8	9.6	-6	-1.2	-7.2
	[15.4]	[6.4]**	[13.3]	[24.4]	[7.8]	[20.4]
2nd gen native + immigrant same origin	20.1	4.8	24.9	12.2	-38.9	-26.7
	[30.1]	[13.9]	[18.5]	[35.1]	[8.6]***	[32.3]
2nd gen native + immigrant diff origin	12	15.7	27.6	1.6	-13.2	-11.6
	[14.7]	[11.8]	[11.6]**	[56.5]	[22.7]	[41.1]
R^2	0.31	0.09	0.25	0.37	0.1	0.3
N	20,737	20,737	20,737	18,554	18,554	18,554
MALE EARNER COUPLES						
E. By immigrant citizenship status						
US citizen	-1.1	-22.9	-24	1.5	-10.5	-9.1
	[4.3]	[12.8]*	[14.2]*	[14.8]	[6.1]*	[17.0]
Not US citizen	5.9	-25.9	-20.1	-3.1	-0.3	-3.4
	[7.8]	[14.8]*	[14.5]	[23.3]	[9.0]	[20.9]
R^2	0.03	0.07	0.07	0.38	0.1	0.31
F. By immigrant country						
English speaking	-7	3.3	-3.7	-4.1	-11.2	-15.3
	[1.4]***	[27.9]	[28.0]	[28.0]	[11.5]	[28.9]
Non-English sp.	3.6	-29.2	-25.6	-0.6	-3.9	-4.4
	[4.5]	[13.1]**	[13.8]*	[17.1]	[6.3]	[14.8]
R^2	0.03	0.07	0.07	0.38	0.1	0.31
G. By immigrant age at arrival						
Arrived age 0-9	-2.1	-31.9	-34	-41.6	7.6	-34
	[4.9]	[18.0]*	[19.9]*	[31.7]	[11.9]	[32.2]
Arrived aged 10-19	12	-38.5	-26.5	-14.7	-1.1	-15.8
	[11.3]	[20.0]*	[19.5]	[25.0]	[13.4]	[22.8]
Arrived aged 20+	-4.2	-6.5	-10.7	22.1	-12	10
	[4.2]	[12.0]	[12.7]	[15.6]	[6.0]*	[16.1]
R^2	0.03	0.07	0.07	0.38	0.1	0.31
H. By second generation status						
3+gen native + spouse/self immigrant	-0.9	-16.9	-17.8	0.7	-4.4	-3.7
	[3.2]	[9.2]*	[9.7]*	[23.4]	[7.6]	[23.4]
2nd gen native + immigrant same origin	9.6	-36.4	-26.8	-3.6	-13.6	-17.2
	[10.3]	[23.0]	[26.7]	[23.5]	[10.7]	[26.6]
2nd gen native + immigrant diff origin	-3.4	-44.8	-48.2	-4.4	10.1	5.6
	[6.7]	[23.4]*	[23.6]**	[40.0]	[18.3]	[43.7]
R^2	0.03	0.07	0.06	0.38	0.1	0.31
N	7,425	7,425	7,425	6,968	6,968	6,968

Table 4. Time use of immigrants: intermarriages with natives vs all-immigrant marriages

	IMMIGRANT MEN			IMMIGRANT WOMEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
A. Model with full set of controls						
Spouse native	-2.9	-2.6	-5.5	10.3	-6.8	3.4
	[11.6]	[5.9]	[12.9]	[9.3]	[6.7]	[8.2]
R^2	0.32	0.09	0.28	0.19	0.12	0.17
N	6,116	6,116	6,116	6,862	6,862	6,862
B. By citizenship status						
US citizen, spouse native	-0.6	-4	-4.6	5.5	0.1	5.6
	[17.3]	[5.1]	[19.6]	[10.0]	[8.5]	[9.0]
Non-US citizen, spouse native	-5.9	-0.8	-6.7	16.5	-15.9	0.6
	[12.5]	[11.8]	[18.1]	[13.5]	[8.2]*	[13.6]
R^2	0.32	0.09	0.28	0.19	0.12	0.17
N	6,116	6,116	6,116	6,862	6,862	6,862
C. By country						
English speaking, spouse native	-6.9	-1.7	-8.6	2.7	-7.4	-4.8
	[20.9]	[8.0]	[18.4]	[30.4]	[22.5]	[24.7]
Non-English speaking, spouse native	-3.2	-2.8	-6	6.4	-5.1	1.3
	[12.4]	[6.7]	[13.3]	[8.4]	[6.7]	[7.6]
R^2	0.32	0.09	0.28	0.19	0.12	0.17
N	6,116	6,116	6,116	6,862	6,862	6,862
D. By immigrant age at arrival						
Arrived age 0-9	-7.3	5.3	-2	-16.9	-9.3	-26.2
	[28.1]	[8.7]	[24.9]	[26.3]	[19.9]	[14.1]*
Arrived aged 10-19	-7.7	1.3	-6.4	30.9	-15.7	15.2
	[15.7]	[10.4]	[19.4]	[19.8]	[9.9]	[17.8]
Arrived aged 20+	2.7	-9.1	-6.4	9.9	-1.3	8.6
	[14.3]	[6.6]	[14.8]	[14.5]	[9.1]	[12.2]
R^2	0.32	0.09	0.28	0.19	0.12	0.17
N	6,116	6,116	6,116	6,862	6,862	6,862
E. By second generation status						
Spouse 3+gen native	-11.7	13.4	1.7	0.2	-12.4	-12.3
	[13.5]	[5.2]**	[12.8]	[18.1]	[10.6]	[15.1]
Spouse 2nd gen native of same origin	-1.4	-25.2	-26.6	28.2	10.6	38.9
	[18.9]	[9.8]**	[17.6]	[15.6]*	[14.0]	[11.2]***
Spouse 2nd gen native of diff origin	9.5	-3.5	6	-59.1	-8.8	-68
	[29.0]	[20.7]	[25.4]	[23.7]**	[10.0]	[20.4]***
Spouse from diff immigrant origin	-17.4	8.7	-8.7	-1.1	-15.6	-16.6
	[19.7]	[9.9]	[15.8]	[17.0]	[11.4]	[13.1]
FLFP of own country of origin	0.3	0	0.4	1	-0.7	0.3
	[0.3]	[0.1]	[0.2]	[0.3]***	[0.2]***	[0.3]
R^2	0.32	0.09	0.28	0.19	0.12	0.17
N	6,035	6,035	6,035	6,742	6,742	6,742

Female labor force participation (FLFP) rate is the proportion of the female population ages 15-64 that is economically active. Data obtained from World Development Indicators https://databank.worldbank.org/source/world-development-indicators/preview/on#
Values are missing for several small countries.
Other variables included as controls: year, state, day (Friday, Saturday, Sunday, holiday), age, age-squared, race/ethnicity (black, Hispanic, Asian), education (no high school, some college, college, graduate, relative to high school), citizenship status, number of children age 0–2, 3-7, 8-17, presence of another adult age 18–69, presence of an elderly person age 70+, metropolitan residence, years since migration, YSM-squared, two indicators for age at arrival, indicators for cohort, indicators for 9 regions of origin, spouse's age, age-squared, race, years of schooling, citizenship status, log of the share of low skill immigrant population in state, log unearned income and state median income. ATUS weights are used.

Appendix 1. Regions of origin with corresponding countries

Regions	Countries included in the region
Eastern Europe, FSU, Israel	Israel, Albania,Bulgaria,Hungary,Poland,Romania,Czech Republic,Slovak Republic,Bosnia and Herzegovina,Croatia,Serbia,Estonia,Latvia, Lithuania, Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russian Federation, Ukraine, Montenegro, Europe & Central Asia, Central Europe and the Baltics, Kazakhstan, Uzbekistan
Western Europe	Austria, Belgium, Denmark, Finland, France, France, Germany, Greece, Iceland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland
China, other Asia	Bhutan, Myanmar, Cambodia, China, Hong Kong, Indonesia, Japan, Singapore, Koreas, Nepal, Lao PDR, Malaysia, Thailand, Vietnam, Mongolia, South Asia, Philippines
India, Bangladesh, Pakistan	Bangladesh, India, Pakistan
Turkey, M.East, N. Africa	Afghanistan, Iran, Iraq, Lebanon, Kuwait, Jordan, Yemen, Saudi Arabia, Syria, Turkey, United Arab Emirates, Algeria, Egypt, Morocco
Mexico	Mexico
Central & S.America	Cuba, Puerto Rico, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Dominican Republic, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela
Africa, the Caribbean	Cameroon, Ethiopia, Eritrea, Ghana, Guinea, Cote d'Ivoire, Kenya, Liberia, Libya, Nigeria, Senegal, Sierra Leone, Sierra Leone, Somalia, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe, Belize, Virgin Islands, Bahamas, Barbados, Haiti, Jamaica, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Guyana
Canada,UK,Australia,N Zealand	Canada, UK, Ireland, New Zealand, Australia and Oceania

Appendix 2A. OLS Coefficients in time use regressions, native men and wives of native men

	NATIVE MEN			WIVES OF NATIVE MEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
Spouse immigrant	13.1	-5.3	7.8	-20.6	25.3	4.7
	[7.3]*	[4.3]	[7.1]	[14.5]	[9.2]***	[8.7]
Age	6.5	-0.8	5.8	15.2	-3.2	12
	[2.6]**	[1.6]	[2.7]**	[2.4]***	[1.4]**	[2.3]***
Age-squared	-9.8	1.9	-7.9	-19.5	4.9	-14.7
	[3.0]***	[1.8]	[3.1]**	[2.7]***	[1.7]***	[2.9]***
No high school degree	-57.4	2.5	-55	-89.1	37.4	-51.7
	[13.2]***	[5.5]	[14.1]***	[12.0]***	[8.1]***	[10.9]***
Some college	10.5	-0.8	9.6	27.2	-13.9	13.2
	[4.9]**	[2.2]	[4.5]**	[6.1]***	[3.5]***	[5.5]**
College degree	27.7	-8.3	19.4	48.5	-21.3	27.2
	[7.0]***	[2.5]***	[5.9]***	[8.1]***	[3.3]***	[7.3]***
Graduate degree	36.2	-12.6	23.5	93.7	-34.6	59.1
	[7.1]***	[3.1]***	[5.8]***	[8.2]***	[4.0]***	[6.4]***
Black	-21.9	-17.3	-39.3	-10.7	-12.8	-23.5
	[11.6]*	[6.8]**	[10.7]***	[12.6]	[8.4]	[13.5]*
Hispanic	2	-5	-3	1.9	0.5	2.3
	[12.0]	[4.6]	[10.6]	[12.8]	[6.6]	[10.0]
Asian	35.5	-10.1	25.3	22.6	-8.6	14
	[16.4]**	[8.4]	[20.6]	[15.5]	[9.4]	[13.9]
Parents immigrants	-37	5	-32	-9.1	10.8	1.8
	[13.6]***	[4.4]	[12.7]**	[11.6]	[8.1]	[10.5]
One parent immigrant	-4	-3.4	-7.5	-4.6	2	-2.6
	[10.4]	[4.9]	[8.0]	[13.2]	[6.3]	[10.6]
Parents immigrants, spouse	15.7	0.8	16.5	-22.7	5.6	-17.1
	[21.9]	[5.4]	[18.7]	[13.3]*	[6.3]	[10.0]*
One parent immigrant, spouse	5.3	-4.2	1.1	-13.5	8.7	-4.8
	[7.6]	[5.2]	[5.8]	[9.4]	[7.9]	[8.6]
Age, spouse	1.3	0.8	2	-3.5	3.9	0.4
	[2.8]	[1.4]	[2.9]	[2.8]	[1.9]**	[2.3]
Age-squared, spouse	0	0	0	0	0	0
	[0.0]	[0.0]	[0.0]	[0.0]	[0.0]	[0.0]
Years of schooling, spouse	0.4	0.4	0.9	-6.7	1.1	-5.6
	[1.0]	[0.5]	[0.8]	[1.2]***	[0.6]*	[0.8]***
Black, spouse	-38.3	-0.2	-38.5	37.5	-18.2	19.4
	[14.5]**	[6.9]	[12.9]***	[13.8]***	[7.7]**	[13.4]
Hispanic, spouse	-7.9	3.5	-4.4	21.2	5.3	26.5
	[8.8]	[3.1]	[9.2]	[7.8]***	[5.2]	[7.1]***
Asian, spouse	-29.7	-1.1	-30.8	47.9	-5.4	42.6
	[22.4]	[6.9]	[19.7]	[26.2]*	[14.4]	[20.3]**
Number of children age 0-2	-0.4	1.6	1.2	-61.6	19.2	-42.4
	[4.9]	[2.0]	[4.5]	[3.1]***	[1.6]***	[2.8]***
Number of children age 3-7	-1.2	0.2	-1	-42	21.1	-20.9
	[2.7]	[1.2]	[2.3]	[2.3]***	[1.5]***	[1.9]***
Number of children age 8-17	3.7	1.8	5.4	-18.1	14.9	-3.2
	[2.7]	[1.0]*	[3.0]*	[1.9]***	[1.3]***	[1.7]*
Adult age 18-69 present	13.8	2.9	16.7	-1.8	13.2	11.4
	[5.5]**	[2.7]	[5.0]***	[6.2]	[3.2]***	[5.2]**
Elderly age 70+ present	-15.7	-3.7	-19.4	-36	4.1	-31.9
	[24.5]	[12.9]	[19.2]	[15.8]**	[9.7]	[15.8]**
Metropolitan residence	-9.6	1.9	-7.7	-1.7	-11.8	-13.5
	[6.3]	[2.7]	[5.7]	[4.8]	[2.4]***	[4.5]***
Log low skill immigrant share	41.8	-4.6	37.3	7.5	5	12.6
	[18.1]**	[8.8]	[18.3]**	[18.2]	[9.6]	[14.7]
Log unearned income	-0.9	0.7	-0.2	-0.1	-0.8	-0.9
	[0.6]	[0.2]***	[0.5]	[0.7]	[0.3]**	[0.6]
State median income/1000	0.5	-0.5	-0.1	-2	-0.1	-2.1
	[0.7]	[0.4]	[0.6]	[0.7]***	[0.4]	[0.7]***
R^2	0.3	0.07	0.24	0.21	0.06	0.17
N	28,282	28,282	28,282	31,354	31,354	31,354

Also included: year, state, day (Friday, Saturday, Sunday, holiday).

Appendix 2B. Coefficients in time use regressions, native women and their husbands

	NATIVE WOMEN			HUSB OF NATIVE WOMEN		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
Spouse immigrant	-4.3	5.3	1	11.9	-11.2	0.7
	[13.3]	[5.9]	[12.3]	[11.6]	[4.0]***	[10.4]
Age	14.5	-2.9	11.7	6.6	-1.7	4.9
	[2.4]***	[1.4]**	[2.4]***	[2.7]**	[1.5]	[2.7]*
Age-squared	-18.5	4.4	-14.1	-10.2	2.8	-7.4
	[2.6]***	[1.7]**	[2.9]***	[3.1]***	[1.8]	[3.1]**
No high school degree	-91.3	33.5	-57.9	-48.4	1.9	-46.5
	[12.2]***	[7.7]***	[10.5]***	[14.0]***	[5.2]	[15.0]***
Some college	27.3	-12.9	14.5	14	-0.9	13.1
	[6.2]***	[3.2]***	[5.9]**	[5.6]**	[2.1]	[5.3]**
College degree	47	-19.7	27.4	26.8	-6.8	20
	[7.7]***	[3.3]***	[7.0]***	[7.0]***	[2.7]**	[6.3]***
Graduate degree	95.1	-32.9	62.2	36.2	-12	24.2
	[8.2]***	[3.8]***	[6.5]***	[6.8]***	[3.0]***	[5.6]***
Black	-13.3	-12.8	-26.1	-23	-15.8	-38.9
	[12.8]	[7.3]*	[13.4]*	[11.9]*	[6.7]**	[10.8]***
Hispanic	4.9	-0.8	4.1	1.2	-5.5	-4.2
	[12.5]	[5.6]	[10.4]	[12.1]	[4.4]	[11.0]
Asian	47.5	-5.6	41.9	-13.3	4.4	-8.8
	[23.7]*	[9.3]	[21.2]*	[19.9]	[7.5]	[20.9]
Parents immigrants	-2.3	10.9	8.5	-27.9	10.9	-17
	[12.3]	[9.5]	[9.8]	[12.3]**	[4.0]***	[12.4]
One parent immigrant	-6.7	1	-5.7	-1.6	-5.4	-7
	[12.9]	[6.0]	[9.9]	[10.1]	[4.4]	[8.3]
Parents immigrants, spouse	-17.7	3.1	-14.6	19.6	-4.9	14.7
	[13.5]	[9.3]	[10.1]	[9.2]**	[4.4]	[9.6]
One parent immigrant, spouse	-16	7	-9	9.1	-6.8	2.3
	[10.4]	[8.3]	[9.0]	[6.7]	[5.4]	[6.5]
Age, spouse	-3.9	3.8	-0.1	1.1	1.6	2.7
	[3.3]	[1.9]**	[2.7]	[2.9]	[1.2]	[2.9]
Age-squared, spouse	0	0	0	0	0	0
	[0.0]	[0.0]	[0.0]	[0.0]	[0.0]	[0.0]
Years of schooling, spouse	-6.5	1.1	-5.4	0.6	0.4	1
	[1.2]***	[0.7]	[0.8]***	[1.0]	[0.5]	[0.8]
Black, spouse	40.5	-16.4	24.1	-35.2	-1.2	-36.3
	[13.8]***	[7.2]**	[13.9]*	[15.5]**	[7.1]	[13.4]***
Hispanic, spouse	13.3	4.9	18.2	-17.7	4.8	-12.9
	[6.1]**	[5.6]	[6.0]***	[9.0]*	[5.1]	[8.6]
Asian, spouse	16.5	-11.3	5.2	-5.9	-17.3	-23.2
	[20.5]	[11.9]	[17.9]	[14.6]	[7.0]**	[17.5]
Number of children age 0-2	-60.4	19.4	-40.9	-0.1	0.3	0.2
	[3.6]***	[1.9]***	[2.9]***	[5.2]	[1.9]	[4.7]
Number of children age 3-7	-42.6	20.6	-22	-0.7	0.6	-0.1
	[2.3]***	[1.6]***	[2.2]***	[2.8]	[1.2]	[2.4]
Number of children age 8-17	-17.9	14.5	-3.4	4.4	1.8	6.2
	[2.0]***	[1.3]***	[1.7]*	[2.5]*	[1.1]	[2.9]**
Adult age 18-69 present	-2.1	12.9	10.8	11.8	3.4	15.3
	[6.6]	[3.0]***	[5.8]*	[5.0]**	[2.5]	[4.6]***
Elderly age 70+ present	-36.5	3.9	-32.6	-4.5	-8.6	-13.1
	[16.5]**	[10.4]	[16.8]*	[24.6]	[11.9]	[19.0]
Metropolitan residence	-2.3	-11.3	-13.5	-11	1.3	-9.7
	[4.7]	[2.4]***	[4.5]***	[6.2]*	[2.6]	[5.6]*
Log low skill immigrant share	9.8	7.3	17.1	34.8	-3.1	31.7
	[20.5]	[9.9]	[16.4]	[19.5]*	[9.0]	[19.7]
Log unearned income	0	-1	-1	-1.1	0.7	-0.4
	[0.7]	[0.4]**	[0.6]*	[0.6]*	[0.2]***	[0.5]
State median income/1000	-1.8	-0.1	-1.8	0	-0.8	-0.8
	[0.7]**	[0.4]	[0.8]**	[0.8]	[0.4]**	[0.7]
R^2	0.21	0.06	0.17	0.3	0.07	0.25
N	31,284	31,284	31,284	28,102	28,102	28,102

Also included: year, state, day (Friday, Saturday, Sunday, holiday).

Appendix 3. Sample means, married immigrants aged 20-60, ATUS 2003-18.

	Immigrant men, N=6,117		Immigrant women, N=6,864	
	Wife immigrant	Wife native	Husb immigrant	Husb native
Age	41.7	40.7	39.1	39.3
Black	*0.067*	*0.083*	0.059	0.039
Hispanic	0.570	0.481	0.567	0.386
Asian	0.221	0.085	0.247	0.222
No high school degree	0.335	0.160	0.299	0.085
High school degree	0.355	0.330	0.300	0.096
Some college	0.116	0.187	0.132	0.240
College degree	0.162	0.219	0.192	0.278
Graduate degree	*0.145*	*0.178*	0.128	0.164
Parents immigrants (native sp)	0.000	0.258	0.000	0.216
One parent immigrant (native sp)	0.000	0.137	0.000	0.113
Metropolitan residence	0.950	0.927	0.949	0.931
Presence of own children	0.72	0.64	0.74	0.63
Number of children age 0-17	1.57	1.32	1.59	1.23
Adult age 18-69 present	0.32	0.22	0.31	0.15
Elderly age 70+ present	*0.032*	*0.041*	*0.036*	*0.022*
Low skill immigrant share	0.132	0.129	0.136	0.128
Household income	67,337	97,423	69,409	96,712
Employed	*0.900*	*0.910*	0.540	0.636
Spouse employed	0.511	0.666	*0.886*	*0.886*
Wage, if >0	25.1	31.8	20.8	26.8
Sp. wage, if >0	22.2	28.9	26.7	35.3
Non-US citizen	0.604	0.499	0.636	0.486
Non-US citizen, spouse	0.654	0.000	0.596	0.000
English-sp country	0.020	0.136	0.016	0.114
Arrived age 0-9	0.063	0.252	0.073	0.235
Arrived aged 10-19	*0.288*	*0.314*	*0.264*	*0.247*
Arrived aged 20+	0.648	0.434	0.663	0.518
Years since migration	18.1	23.1	16.1	20.4
Weekend day	0.293	0.333	*0.302*	*0.301*
Sample sizes by origin				
Canada,UK,Australia,N Zealand	127	182	103	190
Eastern Europe, FSU, Israel	206	49	250	83
Western Europe	103	135	92	165
China, other Asia	692	75	754	289
India, Bangladesh, Pakistan	585	29	609	28
Turkey, M.East, N. Africa	264	48	252	59
Mexico	1700	298	1902	283
Central & S.America	973	213	1147	282
Africa,Caribbean Islands	329	109	307	69
Total	4,979	1,138	5,416	1,448
Time use, daily minutes				
Work	379	354	*170*	*201*
Chores	*74*	*77*	214	174
Total work	453	431	384	375

Note: *Italics* = the difference is not statistically significant at 5% level by intermarried status. Survey weights are used.

Appendix 4A. Time use of native men and their wives: intermarriages with immigrants versus all-native marriages

	NATIVE MEN			WIVES OF NATIVE MEN		
	Work	Chores +Care	Total work +Care	Work	Chores +Care	Total work +Care
	1	2	3	4	5	6
A.Full set of controls						
Spouse/self immigrant	13.1	-9.4	3.7	-20.6	34	13.4
	[7.3]*	[5.4]*	[7.8]	[14.5]	[13.5]**	[7.9]*
R^2	0.3	0.09	0.26	0.21	0.15	0.22
B. By immigrant citizenship status						
US citizen	-6.4	5.9	-0.5	6.4	19.2	25.6
	[10.3]	[5.9]	[9.9]	[15.3]	[12.7]	[8.2]***
Not US citizen	35.4	-27	8.5	-47.8	49	1.2
	[10.5]***	[7.3]***	[11.2]	[16.5]***	[15.8]***	[12.5]
R^2	0.3	0.09	0.26	0.21	0.15	0.22
C. By immigrant country						
English speaking	-7.7	-2.4	-10.1	-20.6	46.5	25.8
	[24.1]	[11.8]	[21.1]	[23.5]	[22.8]**	[17.1]
Non-English sp.	16.6	-10.6	6	-20.6	31.8	11.1
	[8.9]*	[6.2]*	[9.6]	[14.8]	[13.5]**	[8.2]
R^2	0.3	0.09	0.26	0.21	0.15	0.22
D. By immigrant age at arrival						
Arrived age 0-9	2.5	0.7	3.1	-25.6	22.5	-3.1
	[15.5]	[13.1]	[17.1]	[24.3]	[24.1]	[10.4]
Arrived aged 10-19	31.1	-24.5	6.7	4	3.2	7.1
	[14.9]**	[7.4]***	[15.1]	[12.5]	[12.7]	[12.6]
Arrived aged 20+	10.8	-8	2.8	-30.2	53.9	23.7
	[10.6]	[5.1]	[10.0]	[20.5]	[14.9]***	[12.6]*
R^2	0.3	0.09	0.26	0.21	0.15	0.22
E. By second generation status						
3+gen native + spouse/self immigrant	16.5	-7.3	9.2	-22.4	31.2	8.8
	[10.2]	[6.8]	[8.1]	[16.9]	[12.9]**	[11.1]
2nd gen native + immigrant same origin	2.7	-22.9	-20.1	-10.2	45.5	35.3
	[22.4]	[10.5]**	[19.9]	[18.9]	[23.5]*	[11.9]***
2nd gen native + immigrant diff origin	-53.1	16.4	-36.6	-74.3	35.4	-38.9
	[26.3]**	[13.0]	[22.7]	[25.6]***	[21.7]	[32.3]
R^2	0.3	0.09	0.26	0.21	0.15	0.22
N	28,282	28,282	28,282	31,354	31,354	31,354

Notes: This table is similar to Table 2A, with different dependent variables in columns 2, 3, 5, 6. Care includes care of children, adults and pets.

Appendix 4B. Time use of native women and their husbands: intermarriages with immigrants versus all-native marriages

	NATIVE WOMEN			HUSB OF NATIVE WOMEN		
	Work	Chores +Care	Total work +Care	Work	Chores +Care	Total work +Care
	1	2	3	4	5	6
A.Full set of controls						
Spouse/self immigrant	-4.3	7.2	2.9	11.9	-17.3	-5.4
	[13.3]	[7.1]	[9.6]	[11.6]	[5.9]***	[9.4]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
B. By immigrant citizenship status						
US citizen	-8.1	5	-3.1	16	-20	-4
	[13.1]	[8.7]	[7.9]	[15.4]	[6.5]***	[14.9]
Not US citizen	0.1	9.7	9.8	7.8	-14.7	-6.8
	[16.4]	[8.5]	[14.6]	[14.4]	[8.6]*	[14.0]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
C. By immigrant country						
English speaking	22	-5	16.9	-5.6	-1.5	-7.1
	[23.8]	[12.2]	[20.9]	[16.5]	[9.5]	[15.4]
Non-English sp.	-10	9.8	-0.2	15.6	-20.6	-5
	[14.9]	[7.1]	[11.6]	[13.2]	[6.7]***	[10.8]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
D. By immigrant age at arrival						
Arrived age 0-9	-12.9	2.4	-10.5	-7	-10.3	-17.3
	[15.6]	[6.8]	[14.0]	[17.1]	[8.6]	[13.6]
Arrived aged 10-19	1.4	4.7	6.1	8.7	-14.9	-6.2
	[21.6]	[9.9]	[16.6]	[15.0]	[9.9]	[15.8]
Arrived aged 20+	-2.9	11.6	8.7	23.4	-22.3	1.2
	[14.8]	[10.1]	[9.0]	[13.7]*	[7.6]***	[11.3]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
E. By second generation status						
3+gen native + spouse/self immigrant	-8.5	9.5	1	4.4	-8.9	-4.5
	[14.1]	[6.8]	[10.3]	[12.6]	[5.5]	[11.5]
2nd gen native + immigrant same origin	-1.2	11.5	10.4	35.1	-44.8	-9.7
	[21.8]	[13.5]	[12.5]	[19.1]*	[10.3]***	[16.9]
2nd gen native + immigrant diff origin	8.2	22.8	31.1	39.4	-19.4	20
	[27.4]	[23.2]	[15.6]*	[31.6]	[18.3]	[21.0]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
N	31,284	31,284	31,284	28,102	28,102	28,102

Notes: This table is similar to Table 2B, with different dependent variables in columns 2, 3, 5, 6. Care includes care of children, adults and pets.