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Do immigrants pay a price when marrying natives? Lessons from the US time use survey†

Abstract

We compare the allocation of time of native men and women married to immigrants against their counterparts in all-native couples using the American Time Use Survey for the years 2003–18. We find that when intermarried to a native man, 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 for just an extra hour per day. Immigrant men do not pay such a price. Some work 34 min less at household chores than native men in all-native marriages, while the native women who marry immigrant men seem to pay a price related to their situation that 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. Traditionally, gender-based privileges may allow immigrant men to prevent native women from getting a price for the value that intermarriage generates for their husbands. Such a "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.

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1 Introduction

Intermarriage is common in 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 natives (immigrants) whether they are intermarried or not.

Marriage is one of the channels through which immigrants integrate. 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 US (Kantarevic, 2004; Furtado and Theodoropoulos, 2009; Chi, 2015) and Australia (Meng and Gregory, 2005). Native spouses help immigrants to access to social capital, finding employment, obtaining legal status, and acquisition of language skills (Furtado and Theodoropoulos, 2010). Intermarriage does not lead to higher wages for immigrant women (Basu, 2015), but offers other benefits, such as a faster path to citizenship, deeper assimilation, better language skills, exposure to a potential network of employers, more resources for (potential) children, a higher standard of living, or more household wealth.

According to an analysis of competitive marriage markets, it is observed 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, which result in 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 for the benefit of the native spouse. The size of 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 cultural exchange with the immigrant, which would give great exposure to a foreign language or cultural integration.

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 are more likely to be specialized in various things. In addition, individuals may not get into intermarriage randomly, 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 from such countries spend more time in joint-housework (Maréen and Morales, 2019; Blau et al., 2020).

Previous research on time allocation and intermarriage between natives and immigrants was done by Nottmeyer (2014) and Basu (2017). Our approach differs from theirs in at least

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

two respects. First, they focus on immigrants and compare their intermarriages to natives with all-immigrant marriages. 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 allocations 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 in multi-person households married couples make decisions regarding time allocation, not individuals. Specialization and division of labor are major themes in these models as well as in the prior empirical studies of Stratton (2005) and Bonke et al. (2008) regarding the relative involvement of men and women in household production. In contrast, our interests 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 relation between intermarriage and total hours of work, as 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 based on one of Becker's models: his analysis on competitive marriage markets 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 man, some immigrant women pay an assimilation price in one or more of the following ways: compared to their counterparts in all-native marriages they will 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 more than one hour extra 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 the native men in all-native marriages. For example, immigrant men married to native women born to immigrant parents from the same region work 34 min 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 relative to what their situation would be in an all-native marriage.

Our results for immigrant women are consistent with analyses of competitive marriage markets and the value of intermarriage to immigrants, as outlined in Section 2 of this paper and in line with the analysis in Grossbard-Shechtman (1984). 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. The control of men 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 in the US for three or more generations.

Section 3 presents the data and methods. Section 4 discusses 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 in married couples

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 the goods and services being produced are household public goods). Therefore, *ceteris paribus*, the more chores one does, the worse off one is; the more chores the spouse does, the better off one is.

Becker (1965, 1981), and many economists in his footsteps, assumes that a married household makes decisions on what to produce and who will be 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.[2] Nevertheless, a married individual's willingness to work is expected to vary as a function of what the spouse does, and they may harmonize their work decisions.

Among egalitarian couples, there may be an equal exchange of household production based upon income earned from work. When one spouse does more household production than the partner, who is doing more paid work may transfer something in terms of compensation to the partner in exchange for the fruits of household production. Such transfer allows the household production worker to buy more goods and services for their personal consumption than what they could afford if they were single.

We assume that the individuals observed as part of marriage have been or still are part of marriage markets in which people with their characteristics interact. Individuals participating in these marriage markets make decisions such as "marry or stay single," "whom to marry," or "stay married or leave," in part are related to market conditions. We assume there are multiple marriage markets, each one defined for individuals with a particular type as in Becker's (1973) second demand and supply model.[3] This is a model that assumes heterosexuality and thus each marriage market is defined for a particular type of woman or a particular type of man.[4] For example, there are markets for educated immigrant women marrying educated native men; educated immigrant women marrying educated immigrant men; uneducated native women marrying educated immigrant men; and so on. We adapt Becker's (1973) model by conceiving marriage markets as markets for household production work supplied by a spouse, in line with GS84. 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. In each market, there is an operating price for the individuals willing

2 Individual decision-making also underlies traditional micro-foundations of models of firms and workers.

3 The second demand and supply model in Becker (1973) is not included in his *Treatise* (Becker, 1981, 1991) and therefore many contemporary scholars are not familiar with it (see Grossbard (2010)). These separate but interrelated markets are called "hedonic markets" in Choo and Siow (2006) and Grossbard (2015).

4 The GS84 model is not limited to heterosexual couples and can accommodate household-level consumption.

to work in household production benefiting a spouse and the same individuals may have a different price in different markets.[5]

The price in a particular submarket may be established either via forces of demand and supply or by men with their social and political power set prices. In the case where demand and supply forces establish an equilibrium price, that price will depend on what is going on in the other related markets, since individuals participating in market X are likely to consider alternatives in other markets such as markets Z or W. As pointed out by Becker (1973), the elasticity of demand or supply in a particular market will depend on how easy it is for the individuals behind that demand or supply to substitute between the type of spouse found in this particular market and those found in alternative markets.

In the case when market forces are not allowed to operate in marriage markets, powerful men may use their power to set 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] In such cases price setting by men prevents women from capturing the market value they could have obtained if marriage markets had been free. Furthermore, in such societies, there may be no need for women to work more hours in the labor force if their price as household producers is low, and their economic activity may threaten men's dominance in society. Men may actively prevent women's labor force participation via marriage bars and similar policies (Grossbard, 2020).

As long as a person is free to enter or exit labor markets, 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). Conversely, individuals who earn a low "pay" for their work in marital household production are expected to work fewer hours at household chores and possibly more in the labor force.

We assume—*ceteris paribus*—an individual is better off when she or he works less, either in the labor force or in household chores, and can spend more time in leisure activities. Since a spouse's chores often benefit the respondent, we assume that an individual is better off when their spouse works more times on 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 could also be better off more if his or her spouse works in the labor force to the extent that spouses who work more also earn more and some of the benefits or additional income may be transferred to the individual.

Here we consider marriage markets separately 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 were from English-speaking countries; others not. Some immigrants obtained US citizenship; others not. Each of these characteristics implies potential participation in a separate submarket and each submarket participating individual may get a different price for his or her work in marital production. Intermarriage with natives may offer immigrants benefits such as improved social capital and language skills, better employment opportunities, legal status (as documented by Furtado and

5 Likewise, the same person may get paid differently if she enters a market for security guards or receptionists.

6 We do not know of societies where women dominate and set prices for men as grooms or husbands.

7 The markets may be subdivided into a larger number of sub-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.

Theodoropoulos (2010)), and rapid wage growth (Kantarevic, 2004; Meng and Gregory, 2005; Furtado and Theodoropoulos, 2009).[8] The prospect of such benefits may, therefore, influence one's willingness to participate in native spouses' marriage markets.

Starting with the case of competitive marriage markets let us first consider a simple example with two markets for native men, one in which women are also native and in the other women are immigrants. Assume that initially, men's supply is identical and that all other relevant traits of men and women are the same in both markets.[9] The two markets differ in terms of individual immigrant women's demand for marriage to native men (in the native/immigrant market) being higher than that of native women in the market considering all-native marriages. If the demand is higher and supply initially being the same, then the equilibrium price of native men in the immigrant/native marriage market will be higher than their price in the all-native marriage market. But this situation will not last long: in response to a better price for their work in household production, more native men will be willing to marry immigrant women, so the supply of native men increases in the market with immigrant women and decreases in the market with native women. The process will stop when the difference between the prices of native men in the two markets shrinks to a point where native men no longer have an incentive to switch from one market to another. A gap may remain due to natives' costs associated with marrying non-natives, such as a social or family taboo. Alternatively, natives may exhibit discrimination against immigrants.[10]

The hourly price difference paid by immigrant women married to native men compared to what native women pay in all-native marriage markets may be transferred in additional work on chores performed by immigrant women compared to the hours of chores worked by native women if married to the same kind of men. It may also lead to less work on chores by native men and fewer hours of work by native men.

Second, these conclusions cannot be applied 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 best interests (Grossbard, 2020). Immigrant men, their families, and their native wives' families may prevent native women from getting their value in native/immigrant marriages in the US.[11] Now compare the all-native marriage market against a native/immigrant marriage market with immigrant men or native men on the demand side and native women on the supply side. If market forces are allowed to operate, the price of native women's work in household production will be at a higher level in the all-native market than in the market for native women and immigrant men (given that immigrants benefit from being married to natives). However, men may intervene and not allow native women from obtaining such premium when marrying immigrant men.

If native women do not get "paid" more for their work in household production when marrying immigrant men, they may not also work less when compared to their counterparts in all-native marriages, either in the household or the labor force. Nor their immigrant husbands

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).

9 There are some parallels between this analysis of individuals switching from one marriage market to another and the economic analysis of migration driven by wage differentials across different countries.

10 We thank a referee for pointing this out.

11 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.

work more hours in the labor force or household production. This scenario is more likely to hold if immigrants come from countries where male domination is more common and women are typically prevented from capturing gains from marriage. Alternatively, men may use their dominance in other areas to force women directly to allocate more time to chores (and possibly other work) than they otherwise would. Male dominance has been shown to influence the allocation of time to chores in previous researches (e.g., West and Zimmerman, 2009).

The reasoning we applied to comparisons between natives in all-native marriages and natives in intermarriages with immigrants may vary as a function of whether immigrants are non-US citizen immigrants and need assistance for obtaining US citizenship. For example, assuming competitive marriage markets, there may be more premium for marrying a non-citizen immigrant than one who is a citizen, as the value of intermarriage to individuals on the demand side possibly being higher for non-citizen immigrants, and natives of the supply side may be having a stigma on marrying a non-citizen immigrant.[12]

Culture and language are important determinants of immigrant women's labor supply and overall time allocation (Blau, 2015; Gay et al., 2018). The competitive marriage market argument above may also apply to immigrants a lot whose English are a lot to be desired: they may have a higher need for assimilation and the natives may be more reluctant to substitute an immigrant with English-language deficiencies for a native. Therefore, when married to natives, immigrants from non-English speaking countries may have a heavier workload or work more in chores compared to natives in all-native marriages. 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.

Immigrants and natives of similar cultures are more likely to marry each other and allocate their time according to regional cultural norms. Hispanic and Asian immigrants are more likely to marry native-born, co-ethnics (Lichter et al., 2015). Children of richer parents (e.g., South and East Asians) are more likely to marry within the same culture, as parents can leverage family resources to influence the decision-making of their children (Bohra-Mishra and Massey, 2015). Immigrants are more likely to marry natives of the same religious traditions (Qian et al., 2012). In our data on the second generation married natives, we also observe high rates of co-ethnic intermarriage with first generation immigrants among these groups. Among natives of Mexican origin, 30% of men and over 40% of women are married to first generation immigrants from Mexico. Same-culture marriages are also common among second generation natives from South America—over 20% of men and over 25% of women are married to immigrants from South America. Similarly, over 25% of men from India/Bangladesh/Pakistan and Turkey/Middle East/North Africa are married to immigrant women from the same region. Second generation native women from these regions are less likely than men to marry within the same culture—only 18% of women from India/Bangladesh/Pakistan and 15% from Turkey/Middle East/North Africa are married to co-ethnic first-generation immigrant husbands. Marriages within the same culture are also common among second generation natives from Africa/Caribbean—around 20% of men and women are with partners who are immigrants of the same origin. In contrast, second generation men and women of European descent and those from the English-speaking developed countries are least likely to marry within their culture.

12 As a result, natives may have a limited willingness to substitute non-citizen immigrant and native spouses.

We also differentiate immigrants by their age at immigration.[13] Immigrants who arrived as children may not be very different from natives. Consequently, it is predicted that when compared to natives in all-native marriages, 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 can differentiate between those who immigrated as teenagers and those who were 20 years old or older.

Finally, we can differentiate 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 US, i.e., 3rd + generation of natives.[14] To the extent that the various relevant marriage markets are competitive and equilibrium prices are achieved in each market, second generation natives who were exposed to immigrants' culture may require less compensation for marrying an immigrant than natives whose families have been at least three generations in the US. Natives' willingness to marry immigrants may vary depending on the country of origin of parents: natives born to immigrants may be more willing to marry an immigrant from the same origin or ethnicity than natives whose families have been in the US for more generations. Furthermore, depending on the parental 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 individual households, and for natives, this acceptance may vary depending on the parents' region of origin.

3 Data and econometric strategy

3.1 Data

We analyze data from the American Time Use Survey (ATUS) for years 2003–18. The ATUS is an annual supplement to the March Current Population Survey.[15] 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. The advantage of using ATUS in this study is that it identifies countries of birth of all household members and their parents. Drawbacks of the survey are that it only considers information on 24-h time use and 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 to focus on the time use and marriage choices of prime-age adults.[16]

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 classified

13 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.

14 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.

15 Documentation and data files for both surveys are at http://bls.gov/tus/.

16 We removed about 700 records with more than 3 h of missing activities, fewer than 15 min of sleep, more than 22 h of chores, paid work, or personal care each to focus on typical daily time use.

as natives. Immigrants are defined as respondents born abroad whose parents were also born abroad.[17] 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 are 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 natives are more likely to have immigrant spouses, who in turn are also more likely to be respectively Hispanic or Asian, respectively. Intermarried respondents are more likely to live in metropolitan areas with a 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 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 if employed, may earn higher wages than native women. One out of four immigrant wives arrived before age 10, the same share arrived at age 10–19, and the rest arrived aged 20 and older. Almost half of the 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. Immigrant husbands of native women are more likely to either have no high school diploma or to have graduate degrees than native husbands. Immigrant husbands are younger and generally they earn higher wages than native husbands.

In addition to natives and their spouses, we analyze time use of immigrants. Among immigrants, 17% of men and 19% of women have native spouses. Intermarriage rates vary by region of immigrants' origin.[18] The majority of immigrants 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 far more likely to marry natives than men from Asia (27% vs 9%).

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

(1) Chores: includes cooking, cleaning, laundry, interior and exterior home repairs, maintenance and decoration, grocery shopping, outdoor and vehicle care, household organization and planning, financial management such as paying bills.[19]
(2) Work: includes formal and informal income generating activities, work-related social time, job search, and commute.[20]
(3) Total work = chores + work.

17 Respondents born in Puerto Rico, the US territory, are also considered immigrants.

18 The various regions of origin can be found in Table A1 in Appendix.

19 ATUS codes: 02 (except 0206) + 070101+1802+180701.

20 ATUS codes: 05+1805.

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

	Native men		Wives of native men		Native women		Husbands of native women	
	Wife native	**Wife immigrant**	**Native**	**Immigrant**	**Husband native**	**Husband immigrant**	**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 immigrant (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

(*continued*)

Table 1 (Continued)

	Native men		Wives of native men		Native women		Husbands of native women	
	Wife native	**Wife immigrant**	**Native**	**Immigrant**	**Husband native**	**Husband immigrant**	**Native**	**Immigrant**
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, New Zealand		144		190		206		182
Eastern Europe, former the Soviet Union, 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, Middle East, N. Africa		70		59		71		48
Mexico		267		283		384		298
Central and South 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 min								
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.
All variables are expressed as proportions, except for age (years), and three variables expressed in dollar terms: household income, wage and spouse's wage.

In defining "chores" we tried to capture activities that people like to avoid when they can afford to, as in Grossbard et al. (2014). However, some elements of household production, such as house decoration or cooking, can be enjoyable and at the end they may be no different from leisure. Some may argue that chores should include non-grocery shopping and use of certain professional services such as banking or legal services, yet we exclude these activities in an attempt to capture only the production of household public goods. Our definition of work excludes human capital investment activities (studying or reading), 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, respectively, on the survey day. These numbers are rather large and possibly reflect informal work such as babysitting or handyman services.

3.2 **Econometric Strategy**

We estimate OLS models, even though OLS models do not establish causality.[21] Our main goal is to establish whether natives intermarriage to immigrants is associated with less work or more work. In the discussion, we integrate 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:

$$Y_{ij} = \alpha^{*}\ Spouse\ Immigrant_{ij} + \beta X_{ij} + u_{ij}, \tag{1}$$

where *Y* represents daily in min 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, Eq. (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 Eq. (1) indicates that the native respondent has an extra workload in an 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 intermarriage may also be reflected in a negative (positive) coefficient of "Spouse Immigrant" in Eq. (1) when *Y* is defined as own chores.

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

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:

$$Y_{ji} = \alpha^{*}\ Immigrant_{ji} + \beta X_{ij} + u_{ji}. \tag{2}$$

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 Eq. (2) may be a premium to a native individual in an NM or MN intermarriage in comparison to what they would get in an NN marriage.

X is a vector of human capital and demographic and household characteristics 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.[22]

The full set of controls also includes the spouse's characteristics (spouse's age, age-squared, ethnicity, and years of schooling). It is important to include 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,[23] 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 spent in chores (Cortés and Pan, 2019).[24] ATUS weights are used 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 an indicator for whether the immigrant speaks with an accent or not and how much assimilation they need.

Some of our regressions include interactions of "spouse immigrant" or "immigrant" with the second generation status of natives. In one of our models, we distinguish between four types of intermarriages: 3+ generation native and immigrant, second generation native and immigrant

22 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.

23 Children can be viewed as exogenous in our daily time use analysis.

24 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%.

from the same region, and second generation native and immigrant from a different region, relative to native-native. We assign parental region of origin to second generation natives.[25]

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 the survey day. The Tobit results turned out overall similar to OLS results, so we only report OLS results.

We also estimate the equivalent of Eqs (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 pays an "assimilation price" when marrying a native in terms of hours of work (including chores) when hours of work in an intermarriage of type MN or NM are compared to hours of work in a MM marriage with another immigrant.

Even though our models do not 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 the 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 used by immigrants in MM marriages and intermarriages with natives.

4.1 Natives in NN versus NM marriages

The model in Panel A of Table 2A 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 min more at chores (col. 5). In total, they work about the same time 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 1–3). 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).[26] 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

25 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.

26 Full results for Tables 2A and 2B (Panel B) can be found in Tables A2 and A3 in Appendix. Other full regression results are available upon request.

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 [6.6]	−3.9 [4.1]	−4.7 [5.4]	−26.8 [15.0]*	24.5 [9.3]**	−2.3 [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 [7.3]*	−5.3 [4.3]	7.8 [7.1]	−20.6 [14.5]	25.3 [9.2]***	4.7 [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 [10.3]	5.8 [5.2]	−0.6 [9.6]	6.4 [15.3]	16.9 [9.6]*	23.3 [8.8]**
Not US citizen	35.4 [10.5]***	−17.9 [5.4]***	17.5 [10.3]*	−47.8 [16.5]***	33.8 [10.6]***	−14 [13.4]
R^2	0.31	0.07	0.25	0.22	0.06	0.17
D. By immigrant country						
English speaking	−7.7 [24.1]	0.6 [12.4]	−7.1 [22.6]	−20.6 [23.5]	23.1 [21.6]	2.5 [20.0]
Non-English sp.	16.6 [8.9]*	−6.2 [4.8]	10.4 [7.9]	−20.6 [14.8]	25.7 [9.3]***	5.1 [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 [15.5]	5.8 [10.4]	8.2 [13.4]	−25.6 [24.3]	9.3 [15.9]	−16.3 [11.8]
Arrived aged 10–19	31.1 [14.9]**	−20.1 [5.9]***	11 [14.1]	4 [12.5]	9.5 [8.6]	13.4 [11.1]
Arrived aged 20+	10.8 [10.6]	−4.3 [4.6]	6.5 [10.2]	−30.2 [20.5]	39.9 [10.9]***	9.7 [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 [10.2]	−3.4 [5.4]	13.1 [8.3]	−22.4 [16.9]	19.9 [7.9]**	−2.5 [12.1]
2nd gen native + immigrant same origin	2.7 [22.4]	−13.9 [8.7]	−11.2 [21.1]	−10.2 [18.9]	51.4 [19.7]**	41.3 [12.1]***
2nd gen native + immigrant diff origin	−53.1 [26.3]**	7.8 [15.2]	−45.3 [22.0]**	−74.3 [25.6]***	17.6 [10.6]	−56.7 [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 women.

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

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

	Native women			Husband 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 [13.7]	7.8 [6.2]	9.3 [10.8]	17.4 [11.3]	−12.5 [4.0]***	4.8 [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 [13.3]	5.3 [5.9]	1 [12.3]	11.9 [11.6]	−11.2 [4.0]***	0.7 [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 [13.1]	6.3 [5.9]	−1.8 [11.0]	16 [15.4]	−13.2 [5.2]**	2.8 [15.6]
Not US citizen	0.1 [16.4]	4.2 [7.9]	4.3 [16.1]	7.8 [14.4]	−9.1 [7.4]	−1.3 [14.3]
R^2	0.22	0.06	0.17	0.31	0.07	0.25
D. By immigrant country						
English speaking	22 [23.8]	−0.1 [8.4]	21.9 [20.1]	−5.6 [16.5]	−14 [5.7]**	−19.6 [15.6]
Non-English sp.	−10 [14.9]	6.5 [6.1]	−3.5 [14.5]	15.6 [13.2]	−10.6 [4.9]**	5 [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 [15.6]	3.2 [6.7]	−9.7 [16.1]	−7 [17.1]	2.6 [6.4]	−4.4 [14.5]
Arrived aged 10–19	1.4 [21.6]	6.1 [12.1]	7.5 [16.8]	8.7 [15.0]	−11.5 [8.6]	−2.8 [15.8]
Arrived aged 20+	−2.9 [14.8]	6 [6.1]	3.1 [13.2]	23.4 [13.7]*	−17.9 [5.0]***	5.6 [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 [14.1]	7.8 [5.7]	−0.7 [13.7]	4.4 [12.6]	−4 [3.5]	0.4 [11.6]
2nd gen native + immigrant same origin	−1.2 [21.8]	4.6 [13.2]	3.5 [13.2]	35.1 [19.1]*	−34.6 [8.9]***	0.5 [17.4]
2nd gen native + immigrant diff origin	8.2 [27.4]	11.9 [15.6]	20.1 [14.4]	39.4 [31.6]	−12.4 [18.2]	27 [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 [10.8]	4.6 [4.4]	−2.7 [10.6]	23.1 [17.0]	−2.3 [9.9]	20.8 [10.9]*
Not US citizen	19.9 [13.0]	−10.9 [8.3]	9 [13.3]	1 [18.1]	6.7 [7.9]	7.6 [18.6]
R^2	0.37	0.1	0.3	0.31	0.09	0.25
B. By immigrant country						
English speaking	21.3 [20.6]	1.1 [17.4]	22.4 [18.3]	−11.9 [23.4]	−7.1 [15.0]	−19 [19.7]
Non-English sp.	0.6 [9.9]	−2.2 [4.0]	−1.6 [9.3]	17.9 [13.1]	3.1 [8.5]	20.9 [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 [15.6]*	−5.2 [7.1]	26 [15.0]*	−14.6 [32.1]	−2.1 [16.4]	−16.7 [19.0]
Arrived aged 10–19	−9.6 [15.3]	−11.6 [6.8]*	−21.3 [17.0]	46.6 [16.2]***	−9.2 [11.0]	37.3 [15.2]**
Arrived aged 20+	−3.8 [13.5]	4.8 [7.5]	1 [14.0]	11.2 [18.9]	8.9 [8.6]	20.1 [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 [12.3]	−2.9 [5.4]	−4.3 [10.2]	1.3 [15.1]	−2 [7.7]	−0.7 [11.1]
2nd gen native + immigrant same origin	27.7 [22.4]	−7.2 [13.4]	20.5 [20.3]	56.6 [19.2]***	19.6 [13.3]	76.2 [19.2]***
2nd gen native + immigrant diff origin	−0.6 [32.0]	23.3 [23.7]	22.7 [28.6]	28.5 [37.0]	−7.8 [18.5]	20.7 [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

(*continued*)

Table 3A (Continued)

	Native men			Wives of native men		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
MALE EARNER COUPLES						
E. By immigrant citizenship status						
US citizen	−6.1 [20.7]	7.6 [7.7]	1.5 [21.5]	−2.5 [2.8]	50.6 [15.2]***	48.1 [16.2]***
Not US citizen	56.2 [19.4]***	−17.1 [6.6]**	39.1 [19.0]**	−4.1 [4.3]	38 [13.2]***	33.9 [12.2]***
R^2	0.37	0.11	0.31	0.03	0.07	0.07
F. By immigrant country						
English speaking	−30.7 [27.6]	−13 [10.4]	−43.7 [21.9]*	−1.5 [4.0]	49 [50.0]	47.4 [50.1]
Non-English sp.	38.2 [16.1]**	−5.2 [5.6]	33 [14.5]**	−3.9 [2.6]	41.3 [11.3]***	37.4 [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 [18.3]**	8 [9.3]	−38 [19.1]*	−7.5 [2.6]***	18 [23.2]	10.5 [22.9]
Arrived aged 10–19	88.5 [28.7]***	−21.6 [7.9]***	67 [24.7]***	−6.9 [2.4]***	16.8 [11.7]	9.9 [12.7]
Arrived aged 20+	34.5 [18.2]*	−6.2 [6.5]	28.3 [16.5]*	−0.3 [4.1]	64.9 [15.8]***	64.6 [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 [15.7]**	−1.9 [6.6]	33.1 [14.8]**	−0.3 [3.8]	40.2 [12.4]***	39.8 [12.2]***
2nd gen native + immigrant same origin	21.9 [34.6]	−25.2 [10.5]**	−3.4 [36.3]	−11.6 [5.9]*	75.9 [37.0]**	64.3 [35.6]*
2nd gen native + immigrant diff origin	−27.1 [39.3]	−0.4 [18.4]	−27.4 [41.9]	−9.2 [4.6]*	−23.7 [30.3]	−32.8 [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			Husband 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 [14.4]	9.9 [6.0]	21.3 [10.9]*	9.7 [20.2]	−9.5 [8.3]	0.2 [19.6]
Not US citizen	−9.2 [18.1]	14.9 [7.7]*	5.7 [16.2]	−13.2 [23.4]	−10 [7.0]	−23.3 [22.8]
R^2	0.31	0.09	0.25	0.37	0.1	0.3
B. By immigrant country						
English speaking	23.4 [25.0]	−6 [9.5]	17.4 [20.5]	−24.9 [26.7]	−10.3 [6.9]	−35.2 [26.7]
Non-English sp.	−3.3 [16.5]	16.7 [6.6]**	13.5 [13.3]	3.8 [21.4]	−9.6 [6.4]	−5.8 [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 [21.7]	11.9 [8.3]	2.6 [19.3]	−6.4 [20.7]	0.2 [8.6]	−6.3 [17.4]
Arrived aged 10–19	11 [26.7]	19.7 [10.8]*	30.7 [19.4]	−3.7 [26.9]	−9.9 [10.1]	−13.6 [24.1]
Arrived aged 20+	3.6 [14.9]	7.6 [7.5]	11.2 [12.1]	2.2 [20.6]	−15.1 [7.6]*	−12.9 [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 [15.4]	13.8 [6.4]**	9.6 [13.3]	−6 [24.4]	−1.2 [7.8]	−7.2 [20.4]
2nd gen native + immigrant same origin	20.1 [30.1]	4.8 [13.9]	24.9 [18.5]	12.2 [35.1]	−38.9 [8.6]***	−26.7 [32.3]
2nd gen native + immigrant diff origin	12 [14.7]	15.7 [11.8]	27.6 [11.6]**	1.6 [56.5]	−13.2 [22.7]	−11.6 [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

(*continued*)

Table 3B (Continued)

	Native women			Husband of native women		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
MALE EARNER COUPLES						
E. By immigrant citizenship status						
US citizen	−1.1 [4.3]	−22.9 [12.8]*	−24 [14.2]*	1.5 [14.8]	−10.5 [6.1]*	−9.1 [17.0]
Not US citizen	5.9 [7.8]	−25.9 [14.8]*	−20.1 [14.5]	−3.1 [23.3]	−0.3 [9.0]	−3.4 [20.9]
R^2	0.03	0.07	0.07	0.38	0.1	0.31
F. By immigrant country						
English speaking	−7 [1.4]***	3.3 [27.9]	−3.7 [28.0]	−4.1 [28.0]	−11.2 [11.5]	−15.3 [28.9]
Non-English sp.	3.6 [4.5]	−29.2 [13.1]**	−25.6 [13.8]*	−0.6 [17.1]	−3.9 [6.3]	−4.4 [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 [4.9]	−31.9 [18.0]*	−34 [19.9]*	−41.6 [31.7]	7.6 [11.9]	−34 [32.2]
Arrived aged 10–19	12 [11.3]	−38.5 [20.0]*	−26.5 [19.5]	−14.7 [25.0]	−1.1 [13.4]	−15.8 [22.8]
Arrived aged 20+	−4.2 [4.2]	−6.5 [12.0]	−10.7 [12.7]	22.1 [15.6]	−12 [6.0]*	10 [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 [3.2]	−16.9 [9.2]*	−17.8 [9.7]*	0.7 [23.4]	−4.4 [7.6]	−3.7 [23.4]
2nd gen native + immigrant same origin	9.6 [10.3]	−36.4 [23.0]	−26.8 [26.7]	−3.6 [23.5]	−13.6 [10.7]	−17.2 [26.6]
2nd gen native + immigrant diff origin	−3.4 [6.7]	−44.8 [23.4]*	−48.2 [23.6]**	−4.4 [40.0]	10.1 [18.3]	5.6 [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 [11.6]	−2.6 [5.9]	−5.5 [12.9]	10.3 [9.3]	−6.8 [6.7]	3.4 [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 [17.3]	−4 [5.1]	−4.6 [19.6]	5.5 [10.0]	0.1 [8.5]	5.6 [9.0]
Non-US citizen, spouse native	−5.9 [12.5]	−0.8 [11.8]	−6.7 [18.1]	16.5 [13.5]	−15.9 [8.2]*	0.6 [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 [20.9]	−1.7 [8.0]	−8.6 [18.4]	2.7 [30.4]	−7.4 [22.5]	−4.8 [24.7]
Non-English speaking, spouse native	−3.2 [12.4]	−2.8 [6.7]	−6 [13.3]	6.4 [8.4]	−5.1 [6.7]	1.3 [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 [28.1]	5.3 [8.7]	−2 [24.9]	−16.9 [26.3]	−9.3 [19.9]	−26.2 [14.1]*
Arrived aged 10–19	−7.7 [15.7]	1.3 [10.4]	−6.4 [19.4]	30.9 [19.8]	−15.7 [9.9]	15.2 [17.8]
Arrived aged 20+	2.7 [14.3]	−9.1 [6.6]	−6.4 [14.8]	9.9 [14.5]	−1.3 [9.1]	8.6 [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

(*continued*)

Table 4 (Continued)

	Immigrant men			Immigrant women		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
E. By second generation status						
Spouse 3+ gen native	−11.7 [13.5]	13.4 [5.2]**	1.7 [12.8]	0.2 [18.1]	−12.4 [10.6]	−12.3 [15.1]
Spouse 2nd gen native of same origin	−1.4 [18.9]	−25.2 [9.8]**	−26.6 [17.6]	28.2 [15.6]*	10.6 [14.0]	38.9 [11.2]***
Spouse 2nd gen native of diff origin	9.5 [29.0]	−3.5 [20.7]	6 [25.4]	−59.1 [23.7]**	−8.8 [10.0]	−68 [20.4]***
Spouse from diff immigrant origin	−17.4 [19.7]	8.7 [9.9]	−8.7 [15.8]	−1.1 [17.0]	−15.6 [11.4]	−16.6 [13.1]
FLFP of own country of origin	0.3 [0.3]	0 [0.1]	0.4 [0.2]	1 [0.3]***	−0.7 [0.2]***	0.3 [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 nine 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.

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 Tables 2A and 2B present coefficients on the interaction term "Spouse Immigrant" with several immigrant's characteristics.

It can be observed from Panel C that native men's allocation of time does not vary across the type of marriage (NM vs NN) if the immigrant wife is a US citizen (cols 1–3) but immigrant wives with citizenship do 17 min more chores and have a heavier workload (23 min more 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 an NM marriage, native men spend 35 min more in the labor force and 18 min less at chores, with their overall workload 17 min 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 min more in chores and 48 min less in the labor force with a somewhat lighter workload than native women (although the coefficient on total work is not statistically significant). These women are worse off than native women in NN marriages provided 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 can see that both husbands and wives as 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 min more 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). As their hours at paid work are lower, their total workload is unaffected. It appears that when 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 1–6). 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 1 and 2 in Table 2A. As for immigrant women who arrived after age 19, they work 40 min more at chores than women in NN marriages (col. 5). This is consistent with

a model of competitive marriage markets that a lesser degree is needed to assimilate via intermarriage on the part of immigrants who grew up in the US relative to immigrants who arrived at a later age, and there is a less reluctance to marry immigrants who grew up in the US on the part of potential native spouses.[27]

Panel F makes a distinction between three categories of natives: 3+ generation native (in the US for at least three generations), second generation natives whose parents emigrated from the same region as the immigrant spouse, and second generation natives whose parents emigrated from a different region. Based on our sample of 2,094 men and 2,431 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 origins.

The coefficients in the first row of Panel F suggest that 3rd generation native men and second 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 chores or 41 min more total work. These may be due to 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.[28] Both spouses work less in marriages of second generation native men and immigrant women of different origin. Men in these couples work 53 min less for pay and do overall 45 min less total work. Women in these couples spend 1 h 14 min less working for pay or 57 min less per day than native wives.

4.2 **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 1–3, Panels A–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 due to the arrival of immigrant men after age 19: they spend 23 min more in paid work and 18 min 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 35 min more in chores and 35 min less in the labor force, relative 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 origins, their paid work and total workload are higher

27 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.

28 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.

than that of their counterparts married to natives, but the standard errors are large, and none of the coefficients is significant.

4.3 Summing up: comparing NM, MN, and NN marriages

There is a contrast between the results obtained for immigrant women married to native men (Table 2A) and immigrant men married to native women (Table 2B). Compared 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).

4.4 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 may pay a penalty (do additional works) 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 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 husband not doing 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 do not 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 than the male immigrants if their marriages collapse, especially if they do not have any marketable skills allowing them to succeed in the labor force or business. A further possible explanation for the difference between native men and women intermarried with immigrants is that native men discriminate more against immigrants than is the case with native women. As shown in Section 2, assuming marriage markets are competitive, the price differential $Y - Y'$ that natives can obtain for their work in marital production is a function of how many natives are willing to switch between native and immigrant spouses. The closer the natives they consider that immigrant and native spouses as interchangeable, the smaller will be the difference in the market price between two markets. If native men discriminate more against immigrant spouses than native women, it is

likely that, under the assumption of competitive marriage markets in equilibrium, that is, after natives have moved between the two markets and prices are settled, there will be an extra price paid by immigrant women marrying native men, but immigrant men do not do additional work by marrying native women.

4.5 **Natives, Dual earners, and couples with male earners**

Our results follow 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 in a total workload. They may also enter into arrangements such that women will do less chore works and husbands or men will do more chore works. This conclusion does not follow the 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 reestimated separately for couples with two earners (dual earners, Tables 3A and 3B, Panels A–D) and male-earner couples (Panels E–H).

A major observation 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 48 min of extra daily work if they are not employed in the labor force (Panel E), but only 21 min if they are employed. Two groups of wives do the most extra work, contributing more than 1 h of extra daily work compared to native wives: adult immigrants in male-earner couples and wives of second generation native men of the same origin in both types of couples.

Second generation native women married to immigrants who came from the same region of their parents work substantially more than other native 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 (44 min less total work) and those married to women who migrated as young children (38 min less total work). This is not the case among dual-earner couples.

Contrarily, based on Table 3B, it seems that native women married to immigrants are better off if they are in male-earner couples (Panels E–H) than if both are employed (Panels A–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 21 min extra in total work, wives of non-US citizens spend 15 min more in chores, and wives of men who migrated age 10–19 spend 20 min 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 emigrated from the same region work 39 min less at chores.

Things do not look bad for intermarried native women in single earner couples. On average they spend 23–26 min 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: work extra 48 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 will not be very 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.

4.6 **Immigrants in intermarriages and all-immigrant marriages**

So far, this analysis has focused on the comparison between intermarriages and all-native marriages. Next, we examine how intermarried immigrants fare in terms of paid work and chores compared to endogamous 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 the 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 the same countries, with more gender equality allocate tasks more equally with gender equality.

Our samples of immigrants consist of 6,116 men and 6,864 women. Mean values are in Table A4 in Appendix. 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 an 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 is men who marry second generation native women and 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 13 min 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 is women married to second generation natives of the same origin: these immigrant wives spend 28 min more in paid work and 39 min 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 16 min less in chores, women who migrated as children spend 26 min 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 arrive 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% points higher in her country of origin the immigrant woman performs 10 min more paid work and 7 min less in chores.

4.7 **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. Tables A5 and A6 in Appendix present tables similar to Tables 2A and 2B, but presented with new dependent variables in columns 2, 3, 5, and 6. The conclusions are overall similar, although some estimates need 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. The 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 17 min 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 (US-born respondents) and immigrants. Three types of work times were examined: time at work, time doing household chores, and the sum of those two (total workload). The time use of all types involved was 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 US. We found that when intermarried to a native person, 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 40 min 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 male-breadwinner families benefit from intermarriage by gaining leisure, as the case with husbands of women who arrived to the US as children: if intermarried, 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 (i.e., native co-ethnics). The latter group, husbands of second generation wives spends substantially less time (25 min less) in chores if intermarried and 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 21–28 min longer per day (this is limited to the case of dual-earner couples).

It is noted that the intermarriage of most immigrant women with 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 that even if the native women marry them, they would be paying a price when compared to an all-native marriage. Our findings for immigrant women are consistent with the analysis of competitive marriage markets, the value of intermarriage to immigrants, and native men's taste for discrimination against immigrants. In this case, it seems (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 possible 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 and co-ethnic immigrants. Immigrant wives married to sons of immigrants from the same region pay likely to pay more or

less 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 co-ethnic immigrants get more benefits from intermarriage than those married to native women residing three or more generations in the US. Both findings are consistent with gender roles in these common regions, which are more traditional.

We also analyzed 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, including research on outcomes of household production, such as children's success and nutritional value of household-produced meals as a function of intermarriage. Intermarriage may also carry implications toward the type of jobs that individuals work in the labor force and stated happiness level. More could be explored in terms of whether our results differ due to 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 as 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 when marrying in terms of education.

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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 7, 8 doi:10.1186/s40176-017-0093-3

Beblo, Miriam; Luise Görges; Eva Markowsky (2020, August): Gender Matters in Language and Economic Behaviour. Labour Economics 65. 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, 1991): 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; 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

Bohra-Mishra, Pratikshya; Douglas S. Massey (2015): Intermarriage Among New Immigrants in the USA. Ethnic and Racial Studies 38, 734-758.

Bonke, J.; M. Deding; M. Lausten; L. Stratton. (2008): Intra-Household Specialization in Housework in the United States and Denmark. Social Science Quarterly 89(4), 1023-1043.

Celikaksoy, Aycan; Helena S. Nielsen; 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. doi:10.1108/IJM-05-2013-0112

Choo, Eugene; Aloysius Siow (2006): Who Marries Whom and Why. Journal of Political Economy 114, 175-201.

Cortés, Patricia; Jessica Pan (2019): When Time Binds: Substitutes for Household Production, Returns to Working Long Hours, and the Skilled Gender Wage Gap. Journal of Labor Economics 37(2), 351-398. doi:10.1086/700185

Furtado, Delia; 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; 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; 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. doi:10.1007/s11150-017-9369-x

Grossbard, Shoshana (2010): How Chicagoan are Gary Becker's Economic Models of Marriage? Journal of History of Economic Thought 32(3), 377-395.

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; 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; 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.

Lichter, Daniel; Zhenchao Qian; Dmitry Tumin (2015): Whom Do Immigrants Marry? Emerging Patterns of Intermarriage and Integration in the United States. The Annals of the American Academy of Political and Social Science 662(1), 57-78. doi:10.1177/0002716215594614

Marcén, Miriam; Marina Morales (2019): Gender Division of Household Labor: How does Culture Operate? GLO Discussion Paper No. 373.

Meng, Xin; Robert G. Gregory (2005): Intermarriage and the Economic Assimilation of Immigrants. Journal of Labor Economics 23(1), 135-174.

Mincer, Jacob (1963): Market Prices, Opportunity Costs, and Income Effects, in: Christ, C. (ed.), Measurement in Economics. Stanford, CA: Stanford University Press, pp. 67–82.

Nottmeyer, Olga (2014): Relative Labor Supply in Intermarriage. IZA Journal of Migration 3(1), 1-27.

Qian, Zhenchao; Jennifer E. Glick; D. Christie Batson (2012): Crossing Boundaries: Nativity, Ethnicity, and Mate Selection. Demography 49, 651-675.

Stratton L. (2005): Specialization in Household Activities within Cohabiting Versus Married Households. Mimeo, http://paa2005.princeton.edu/papers/50047.

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

Appendix

Table A1 Regions of origin with corresponding countries

Regions	Countries included in the region
Eastern Europe, former Soviet Union, 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 and 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, Middle East, North Africa	Afghanistan, Iran, Iraq, Lebanon, Kuwait, Jordan, Yemen, Saudi Arabia, Syria, Turkey, United Arab Emirates, Algeria, Egypt, Morocco
Mexico	Mexico
Central and South 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 ,New Zealand	Canada, UK, Ireland, New Zealand, Australia and Oceania

*Spanish speaking Caribbean Islands are included in Central America because of cultural similarity. The population of English and French speaking islands is predominantly of African origin, thus grouped with Africa. A finer regional division would be desirable, but not feasible because of small sample sizes.

Table A2 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 [7.3]*	−5.3 [4.3]	7.8 [7.1]	−20.6 [14.5]	25.3 [9.2]***	4.7 [8.7]
Age	6.5 [2.6]**	−0.8 [1.6]	5.8 [2.7]**	15.2 [2.4]***	−3.2 [1.4]**	12 [2.3]***
Age-squared	−9.8 [3.0]***	1.9 [1.8]	−7.9 [3.1]**	−19.5 [2.7]***	4.9 [1.7]***	−14.7 [2.9]***
No high school degree	−57.4 [13.2]***	2.5 [5.5]	−55 [14.1]***	−89.1 [12.0]***	37.4 [8.1]***	−51.7 [10.9]***
Some college	10.5 [4.9]**	−0.8 [2.2]	9.6 [4.5]**	27.2 [6.1]***	−13.9 [3.5]***	13.2 [5.5]**
College degree	27.7 [7.0]***	−8.3 [2.5]***	19.4 [5.9]***	48.5 [8.1]***	−21.3 [3.3]***	27.2 [7.3]***
Graduate degree	36.2 [7.1]***	−12.6 [3.1]***	23.5 [5.8]***	93.7 [8.2]***	−34.6 [4.0]***	59.1 [6.4]***
Black	−21.9 [11.6]*	−17.3 [6.8]**	−39.3 [10.7]***	−10.7 [12.6]	−12.8 [8.4]	−23.5 [13.5]*
Hispanic	2 [12.0]	−5 [4.6]	−3 [10.6]	1.9 [12.8]	0.5 [6.6]	2.3 [10.0]
Asian	35.5 [16.4]**	−10.1 [8.4]	25.3 [20.6]	22.6 [15.5]	−8.6 [9.4]	14 [13.9]
Parents immigrants	−37 [13.6]***	5 [4.4]	−32 [12.7]**	−9.1 [11.6]	10.8 [8.1]	1.8 [10.5]
One parent immigrant	−4 [10.4]	−3.4 [4.9]	−7.5 [8.0]	−4.6 [13.2]	2 [6.3]	−2.6 [10.6]
Parents immigrants, spouse	15.7 [21.9]	0.8 [5.4]	16.5 [18.7]	−22.7 [13.3]*	5.6 [6.3]	−17.1 [10.0]*
One parent immigrant, spouse	5.3 [7.6]	−4.2 [5.2]	1.1 [5.8]	−13.5 [9.4]	8.7 [7.9]	−4.8 [8.6]
Age, spouse	1.3 [2.8]	0.8 [1.4]	2 [2.9]	−3.5 [2.8]	3.9 [1.9]**	0.4 [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 [1.0]	0.4 [0.5]	0.9 [0.8]	−6.7 [1.2]***	1.1 [0.6]*	−5.6 [0.8]***
Black, spouse	−38.3 [14.5]**	−0.2 [6.9]	−38.5 [12.9]***	37.5 [13.8]***	−18.2 [7.7]**	19.4 [13.4]
Hispanic, spouse	−7.9 [8.8]	3.5 [3.1]	−4.4 [9.2]	21.2 [7.8]***	5.3 [5.2]	26.5 [7.1]***
Asian, spouse	−29.7 [22.4]	−1.1 [6.9]	−30.8 [19.7]	47.9 [26.2]*	−5.4 [14.4]	42.6 [20.3]**
Number of children age 0–2	−0.4 [4.9]	1.6 [2.0]	1.2 [4.5]	−61.6 [3.1]***	19.2 [1.6]***	−42.4 [2.8]***
Number of children age 3–7	−1.2 [2.7]	0.2 [1.2]	−1 [2.3]	−42 [2.3]***	21.1 [1.5]***	−20.9 [1.9]***
Number of children age 8–17	3.7 [2.7]	1.8 [1.0]*	5.4 [3.0]*	−18.1 [1.9]***	14.9 [1.3]***	−3.2 [1.7]*
Adult age 18–69 present	13.8 [5.5]**	2.9 [2.7]	16.7 [5.0]***	−1.8 [6.2]	13.2 [3.2]***	11.4 [5.2]**
Elderly age 70+ present	−15.7 [24.5]	−3.7 [12.9]	−19.4 [19.2]	−36 [15.8]**	4.1 [9.7]	−31.9 [15.8]**
Metropolitan residence	−9.6 [6.3]	1.9 [2.7]	−7.7 [5.7]	−1.7 [4.8]	−11.8 [2.4]***	−13.5 [4.5]***
Log low skill immigrant share	41.8 [18.1]**	−4.6 [8.8]	37.3 [18.3]**	7.5 [18.2]	5 [9.6]	12.6 [14.7]
Log unearned income	−0.9 [0.6]	0.7 [0.2]***	−0.2 [0.5]	−0.1 [0.7]	−0.8 [0.3]**	−0.9 [0.6]
State median income/1,000	0.5 [0.7]	−0.5 [0.4]	−0.1 [0.6]	−2 [0.7]***	−0.1 [0.4]	−2.1 [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).

Table A3 Coefficients in time use regressions, native women and their husbands

	Native women			Husbands of native women		
	Work	Chores	Total work	Work	Chores	Total work
	1	2	3	4	5	6
Spouse immigrant	−4.3 [13.3]	5.3 [5.9]	1 [12.3]	11.9 [11.6]	−11.2 [4.0]***	0.7 [10.4]
Age	14.5 [2.4]***	−2.9 [1.4]**	11.7 [2.4]***	6.6 [2.7]**	−1.7 [1.5]	4.9 [2.7]*
Age-squared	−18.5 [2.6]***	4.4 [1.7]**	−14.1 [2.9]***	−10.2 [3.1]***	2.8 [1.8]	−7.4 [3.1]**
No high school degree	−91.3 [12.2]***	33.5 [7.7]***	−57.9 [10.5]***	−48.4 [14.0]***	1.9 [5.2]	−46.5 [15.0]***
Some college	27.3 [6.2]***	−12.9 [3.2]***	14.5 [5.9]**	14 [5.6]**	−0.9 [2.1]	13.1 [5.3]**
College degree	47 [7.7]***	−19.7 [3.3]***	27.4 [7.0]***	26.8 [7.0]***	−6.8 [2.7]**	20 [6.3]***
Graduate degree	95.1 [8.2]***	−32.9 [3.8]***	62.2 [6.5]***	36.2 [6.8]***	−12 [3.0]***	24.2 [5.6]***
Black	−13.3 [12.8]	−12.8 [7.3]*	−26.1 [13.4]*	−23 [11.9]*	−15.8 [6.7]**	−38.9 [10.8]***
Hispanic	4.9 [12.5]	−0.8 [5.6]	4.1 [10.4]	1.2 [12.1]	−5.5 [4.4]	−4.2 [11.0]
Asian	47.5 [23.7]*	−5.6 [9.3]	41.9 [21.2]*	−13.3 [19.9]	4.4 [7.5]	−8.8 [20.9]
Parents immigrants	−2.3 [12.3]	10.9 [9.5]	8.5 [9.8]	−27.9 [12.3]**	10.9 [4.0]***	−17 [12.4]
One parent immigrant	−6.7 [12.9]	1 [6.0]	−5.7 [9.9]	−1.6 [10.1]	−5.4 [4.4]	−7 [8.3]
Parents immigrants, spouse	−17.7 [13.5]	3.1 [9.3]	−14.6 [10.1]	19.6 [9.2]**	−4.9 [4.4]	14.7 [9.6]
One parent immigrant, spouse	−16 [10.4]	7 [8.3]	−9 [9.0]	9.1 [6.7]	−6.8 [5.4]	2.3 [6.5]
Age, spouse	−3.9 [3.3]	3.8 [1.9]**	−0.1 [2.7]	1.1 [2.9]	1.6 [1.2]	2.7 [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 [1.2]***	1.1 [0.7]	−5.4 [0.8]***	0.6 [1.0]	0.4 [0.5]	1 [0.8]
Black, spouse	40.5 [13.8]***	−16.4 [7.2]**	24.1 [13.9]*	−35.2 [15.5]**	−1.2 [7.1]	−36.3 [13.4]***
Hispanic, spouse	13.3 [6.1]**	4.9 [5.6]	18.2 [6.0]***	−17.7 [9.0]*	4.8 [5.1]	−12.9 [8.6]
Asian, spouse	16.5 [20.5]	−11.3 [11.9]	5.2 [17.9]	−5.9 [14.6]	−17.3 [7.0]**	−23.2 [17.5]
Number of children age 0–2	−60.4 [3.6]***	19.4 [1.9]***	−40.9 [2.9]***	−0.1 [5.2]	0.3 [1.9]	0.2 [4.7]
Number of children age 3–7	−42.6 [2.3]***	20.6 [1.6]***	−22 [2.2]***	−0.7 [2.8]	0.6 [1.2]	−0.1 [2.4]
Number of children age 8–17	−17.9 [2.0]***	14.5 [1.3]***	−3.4 [1.7]*	4.4 [2.5]*	1.8 [1.1]	6.2 [2.9]**
Adult age 18–69 present	−2.1 [6.6]	12.9 [3.0]***	10.8 [5.8]*	11.8 [5.0]**	3.4 [2.5]	15.3 [4.6]***
Elderly age 70+ present	−36.5 [16.5]**	3.9 [10.4]	−32.6 [16.8]*	−4.5 [24.6]	−8.6 [11.9]	−13.1 [19.0]
Metropolitan residence	−2.3 [4.7]	−11.3 [2.4]***	−13.5 [4.5]***	−11 [6.2]*	1.3 [2.6]	−9.7 [5.6]*
Log low skill immigrant share	9.8 [20.5]	7.3 [9.9]	17.1 [16.4]	34.8 [19.5]*	−3.1 [9.0]	31.7 [19.7]
Log unearned income	0 [0.7]	−1 [0.4]**	−1 [0.6]*	−1.1 [0.6]*	0.7 [0.2]***	−0.4 [0.5]
State median income/1,000	−1.8 [0.7]**	−0.1 [0.4]	−1.8 [0.8]**	0 [0.8]	−0.8 [0.4]**	−0.8 [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).

Table A4 Sample means, married immigrants aged 20–60, ATUS 2003–18

	Immigrant men, *N* = 6,117		**Immigrant women, *N* = 6,864**	
	Wife immigrant	**Wife native**	**Husband immigrant**	**Husband 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, New 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, Middle East, North Africa	264	48	252	59
Mexico	1,700	298	1,902	283
Central and South America	973	213	1,147	282
Africa, Caribbean Islands	329	109	307	69
Total	4,979	1,138	5,416	1,448
Time use, daily min				
Work	379	354	*170*	*201*
Chores	*74*	*77*	214	174
Total work	453	431	384	375

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

FSU, Former Soviet Union.

Table A5 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 [7.3]*	−9.4 [5.4]*	3.7 [7.8]	−20.6 [14.5]	34 [13.5]**	13.4 [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 [10.3]	5.9 [5.9]	−0.5 [9.9]	6.4 [15.3]	19.2 [12.7]	25.6 [8.2]***
Not US citizen	35.4 [10.5]***	−27 [7.3]***	8.5 [11.2]	−47.8 [16.5]***	49 [15.8]***	1.2 [12.5]
R^2	0.3	0.09	0.26	0.21	0.15	0.22
C. By immigrant country						
English speaking	−7.7 [24.1]	−2.4 [11.8]	−10.1 [21.1]	−20.6 [23.5]	46.5 [22.8]**	25.8 [17.1]
Non-English sp.	16.6 [8.9]*	−10.6 [6.2]*	6 [9.6]	−20.6 [14.8]	31.8 [13.5]**	11.1 [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 [15.5]	0.7 [13.1]	3.1 [17.1]	−25.6 [24.3]	22.5 [24.1]	−3.1 [10.4]
Arrived aged 10–19	31.1 [14.9]**	−24.5 [7.4]***	6.7 [15.1]	4 [12.5]	3.2 [12.7]	7.1 [12.6]
Arrived aged 20+	10.8 [10.6]	−8 [5.1]	2.8 [10.0]	−30.2 [20.5]	53.9 [14.9]***	23.7 [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 [10.2]	−7.3 [6.8]	9.2 [8.1]	−22.4 [16.9]	31.2 [12.9]**	8.8 [11.1]
2nd gen native + immigrant same origin	2.7 [22.4]	−22.9 [10.5]**	−20.1 [19.9]	−10.2 [18.9]	45.5 [23.5]*	35.3 [11.9]***
2nd gen native + immigrant diff origin	−53.1 [26.3]**	16.4 [13.0]	−36.6 [22.7]	−74.3 [25.6]***	35.4 [21.7]	−38.9 [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, and 6. Care includes care of children, adults and pets.

Table A6 Time use of native women and their husbands: intermarriages with immigrants versus all-native marriages

	Native women			Husband 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 [13.3]	7.2 [7.1]	2.9 [9.6]	11.9 [11.6]	−17.3 [5.9]***	−5.4 [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 [13.1]	5 [8.7]	−3.1 [7.9]	16 [15.4]	−20 [6.5]***	−4 [14.9]
Not US citizen	0.1 [16.4]	9.7 [8.5]	9.8 [14.6]	7.8 [14.4]	−14.7 [8.6]*	−6.8 [14.0]
R^2	0.21	0.15	0.22	0.3	0.09	0.26
C. By immigrant country						
English speaking	22 [23.8]	−5 [12.2]	16.9 [20.9]	−5.6 [16.5]	−1.5 [9.5]	−7.1 [15.4]
Non-English sp.	−10 [14.9]	9.8 [7.1]	−0.2 [11.6]	15.6 [13.2]	−20.6 [6.7]***	−5 [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 [15.6]	2.4 [6.8]	−10.5 [14.0]	−7 [17.1]	−10.3 [8.6]	−17.3 [13.6]
Arrived aged 10–19	1.4 [21.6]	4.7 [9.9]	6.1 [16.6]	8.7 [15.0]	−14.9 [9.9]	−6.2 [15.8]
Arrived aged 20+	−2.9 [14.8]	11.6 [10.1]	8.7 [9.0]	23.4 [13.7]*	−22.3 [7.6]***	1.2 [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 [14.1]	9.5 [6.8]	1 [10.3]	4.4 [12.6]	−8.9 [5.5]	−4.5 [11.5]
2nd gen native + immigrant same origin	−1.2 [21.8]	11.5 [13.5]	10.4 [12.5]	35.1 [19.1]*	−44.8 [10.3]***	−9.7 [16.9]
2nd gen native + immigrant diff origin	8.2 [27.4]	22.8 [23.2]	31.1 [15.6]*	39.4 [31.6]	−19.4 [18.3]	20 [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, and 6. Care includes care of children, adults and pets.