

# Racial Intermarriage and Household Production: Are There Compensating Differentials?

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## *Abstract*

*We investigate whether in the U.S.A. hours of household work vary by whether individuals are in different-race or same-race couples. Data from the American Time Use Survey data for years 2003-2009 are analyzed for samples of White and Black male and female respondents. We find that White women married to Black men devote 0.7 fewer hours per day to housework than their counterparts in all-White marriages, which is comparable to the effect of a young child on their hours of housework. Findings for White men also indicate that they work less at housework when in couple with Black women than when in all-White couples. Conversely, Blacks appear to do more housework if they are in couple with Whites than when in all-Black couples. Results are sensitive to whether time use was measured on weekdays or weekends, relationship status, and employment status in ways that are consistent with our theoretical framework based on Becker's second Demand and Supply model and the concept of Work-In-Household for the benefit of a partner or spouse.*

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## 1. Introduction

Being Black has been associated with a wide range of disadvantages attributed to discrimination (Burke, 2008). In the U.S.A. it has been shown that Blacks earn less than Whites e.g. by Bergmann (1971), Smith and Welch (1989), Altonji and Blank (1999), Darity, Dietrich, and Guilkey (2001) and Goldsmith, Hamilton, and Darity (2007), and most researchers attribute part of that difference to the existence of discrimination. The finding of Goldsmith et al. (2007) and Hersch (2008) that darker Blacks earn less than lighter Blacks is consistent with the existence of such discrimination.

That U.S. Blacks have relatively lower marriage and couple formation rates—as found e.g. by Spanier and Glick (1980) and Hamilton, Goldsmith, and Darity (2009)—and that dark-skinned Blacks have lower marriage rates than light-skinned Blacks (Hamilton et al. 2009) could indicate that there is racial discrimination in marriage markets. Furthermore, historically low intermarriage rates may reflect discrimination against Blacks in marriage markets, as discussed in Fryer (2007) and Chiswick and Houseworth (2011), whereas increases in Black/White intermarriage rates since the 1960s may have resulted from a reduction in such discrimination, as argued in Fryer (2007). Hitsch, Hortaçsu and Ariely (2006) estimate White women’s willingness to date Black men in the U.S.A. in terms of relative number of first-contact e-mails on an internet dating website. That relative to White men African American men received only about half as many first-contact e-mails from White women could reflect either a preference for one’s own or discrimination against Blacks.

Spanier and Glick (1980) and Hamilton et al. (2009) have documented that in the U.S.A. Black men who marry White women have higher education, income and occupational status than Black men who marry Black women. This could be interpreted as more evidence of discrimination against Black men in marriage markets.<sup>1</sup> Discrimination may also explain why Jewish men who married Christians in the U.S.A. a few decades ago had higher education than Jewish men marrying Jewish women (Grossbard-Shechtman 1993) and why similar differentials were found for immigrants marrying natives in Australia (Meng and Gregory 2005), France (Meng and Meurs 2009), and Germany (Nottmeyer 2011). In this paper we test for differentials in time spent on *household chores* as a function of racial intermarriage.

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<sup>1</sup> Reverse causation is an alternative explanation: marriage to a husband from a higher-status group may enhance an individual’s earnings or employment probability.

Our conceptual framework is based on Becker's (1965) theory of allocation of time and Becker's (1973) second Demand and Supply model. Even though Becker considers it an important model (Grossbard 2010) it does not appear in the *Treatise on the Family* (Becker 1981). The model assumes that some market-based distribution mechanism operates in marriage markets, influencing who marries whom as well as intra-marriage allocation of time and money. We add the assumption that intra-marriage distributions are compensations in the sense that individual access to the marital household product varies directly with an individual's work in household production. With such compensation mechanism in place some differentials across marriage markets may reflect "Compensating Differentials in Marriage". Such differentials imply that even if individuals entering interracial marriage do not consider race a factor and even if they have no intention to divorce and remarriage probabilities do not affect them, intra-marriage distribution and allocation of resources may vary with whether a couple is intermarried or not: individuals are affected by equilibrium conditions in the marriage markets in which they actually participated or potentially participate. Consequently, to the extent that most participants agree on which groups have higher status than others, members of groups with higher status will be compensated more when in couple with members of lower status groups than when endogamous (in couple with members of their own group). Conversely, members of groups with lower status will be compensated less when in couple with members of higher status groups than when endogamous.

Grossbard-Shechtman and Neuman (1988) tested for the existence of such compensating differentials comparing the labor supply of women married to husbands of different ethnicity. They predicted that women married to men from lower status ethnicities obtain positive compensating differentials relative to their endogamous counterparts. With more access to the household's resources they are less likely to participate in the labor force. Consistent with the existence of ethnic compensating differentials in marriage they found that women from a higher-status group, Ashkenazi Jews in Israel were less likely to participate in the labor force if married to men from a lower-status group than if endogamous. Grossbard-Shechtman and Fu (2002) also found that women from a lower status group (Hawaiians) were more likely to participate in the labor force when married to Caucasians than when in endogamous marriages.

In this paper we offer a unique way of testing for racial preferences in marriage by examining whether individuals from what many consider a high status group—Whites in the U.S.A.—spend less time on household chores when in couple with Blacks than when endogamous, and whether Blacks—a group that has low status among many Whites in the U.S.A.—spend more time on household chores when in couple with Whites than when endogamous.

Our empirical analysis builds on a growing literature on allocation of time to household production that includes Hamermesh (2002), Bittman et al. (2003), Kalenkoski, Ribar and Stratton (2005, 2007), Aguiar and Hurst (2007), Connelly and Kimmel (2007, 2009), Burda, Hamermesh and Weil (2008), and Bloemen and Stancanelli (2008). While previous time-use studies based on data from the U.S.A. such as John and Shelton (1997) and Sayer and Fine (2010) have controlled for race or investigated racial differences in time-use, our study is the first to focus on how individual allocation of time to household production varies with whether a respondent is in couple with someone from a different racial group.

Using the American Time Use Survey (ATUS) 2003-2009 we focus on the association between a spouse's race and the time that respondents allocate to chores (note that some couples are cohabiting outside marriage; notwithstanding, for simplicity, we use the terms 'marriage', 'husband', 'wife', 'spouse', and 'endogamy' throughout the paper). In estimating the association between husband's race and wife's time in chores we take account of selectivity in intermarriage, following methods used in studies relating native/immigrant intermarriage to income or employment such as Meng and Gregory (2005). Our models for women also take account of selectivity into marriage with an employed man.

Our evidence indicates that White women in couple with Black partners devote less time to chores (0.33 fewer hours per day) and housework (0.60 fewer hours per day) than their endogamous counterparts. The absolute size of these coefficients is similar to the effect of the presence of young children on women's time devoted to chores. A closer look reveals that these results are driven by effects on weekdays and for subsamples of married women and women with low or no labor force participation. To establish whether these are 'effects' or spurious results we estimate a three-equation model that endogenizes intermarriage and husband's employment status. Our results indicate that selection has little impact. White men also spend less time at housework if

intermarried with Black women than if endogamous, but estimated effects are smaller than for women and limited to specific subsamples. At the same time, we find that Black women in couple with White men devote more time to chores (1.2 more hours per weekday) and housework (1.34 more hours per weekday) than their endogamous counterparts, and that intermarried Black men with low or no labor force participation do 1.7 hours of housework more than their endogamous counterparts. Our analyses therefore suggest that Blacks pay a price for being in couple with Whites rather than being endogamous: they are likely to obtain fewer minutes of chores from their White partners, and they are likely to perform more minutes of work themselves. Conversely, relative to their endogamous counterparts, Whites in couple with Blacks benefit from compensating differentials in the form of less own work in chores, and more chore work supplied by their Black partners.

Section 2 presents the conceptual framework. Section 3 describes the data and the empirical strategy. Section 4 presents our results, and Section 5 sets out our main conclusions.

## 2. Conceptual framework

The model's basis is Becker's (1973) second Demand and Supply model of marriage. Like other marriage models included in the *Treatise*, Becker assumes heterosexuality, that household production is the goal of marriage, and he does not make distinctions between marriage and non-marital cohabitation. What distinguishes this model from Becker's first Demand and Supply model of marriage is that it assumes that there are different types of men  $M$  and women  $F$  and that they are substitutable. This substitutability implies that men and women embody general marital human capital that can be of use when engaging in household production with different potential substitutable partners. The model's graphic analysis is limited to a market for one type of man  $M_i$  and one type of woman  $F_i$ . The supply of men  $M_i$  in Becker's (1973) Figure 2 (reproduced here as Figure 1) shows how many men of type  $M_i$  are willing to enter marriages with women  $F_i$  at different values  $e_{ii}$  of these men's share of the gain from marriage to women of type  $i$  (the first  $i$  denotes the type of woman and the second  $i$  the type of man). A man  $M_i$  follows the decision rule

(1) If  $e_{ii} \geq \text{critical value} \rightarrow M_i$  supplies himself in marriage market  $M_i F_i$ .

Keeping constant the shares  $e_{ij}, e_{ik}, \dots$  etc. that men  $M_i$  would possibly obtain if entering marriages to substitutable women of types  $j, k, \dots$  etc., the higher  $e_{ii}$  the more men  $M_i$  supply themselves as mates to women  $F_i$ . The supply of men is therefore upward-sloping. Women  $F_i$  have a demand for marriage to men  $M_i$  that takes account of what portion of the gain from marriage they will obtain, depending on whether they marry men  $M_i$  or other types of men such as  $M_j$  or  $M_k$ . The decision rule that women  $F_i$  follow is

(2) If  $e_{ii} \leq \text{critical value} \rightarrow F_i$  has a demand for marriage with  $M_i$ .

For a given total gain from marriage, the higher men's share  $e_{ii}$  the lower the share of the gain from marriage left for women and consequently the fewer the women  $F_i$  entering the market for  $M_i F_i$  marriages. Instead, they marry other types of substitutable men with whom they can obtain a higher share of gain from marriage. The demand by women of type  $i$  for marriage to men of type  $i$  is thus downward-sloping.

In market equilibrium the share  $e_{ii}^0$  is established in the  $M_i F_i$  market at the intersection of Demand and Supply, that share being the share of the gain from marriage. Simultaneously, shares/prices  $e_{ln}$  are established in the rest of the  $L \times N$  markets for marriages  $M_l F_n$ , where  $l=i, j, k \dots L$  are all the types of women and  $n= i, j, k \dots N$  are all the types of men. In terms introduced by Rosen (1974) after the publication of Becker's (1973) Theory of Marriage, this model can be relabeled a hedonic market model and shares many common features with Choo and Siow (2006). From the model Becker (1973) derived that: "The division [of output, i.e.  $e$ ] is determined here, as in other markets, by marginal productivities—and these are affected by the human and physical capital of different persons, by sex ratios(..) and by some other variables." To introduce some other variables typically ignored in economic analyses of marriage and related to compensating differentials in marriage we prefer a model similar to Becker's

hedonic marriage market model but more compatible with comparative statics analyses of labor markets.

The quantity in Becker's marriage markets is the number of men and women who are interested in possibly engaging in marital household production with each other. We assume that, as is the case in labor market analysis, individuals maintain control over their own time and money and they either (a) supply access to their time to a partner who will benefit from their work in (private or public) marital household production, or (b) acquire the right to use their partner's work in such production. We call **Work In marital Household production** '*WIH*' and  $y$  the pay for such work (per given time unit).<sup>2</sup> As is the case with work for an employer *WIH* benefits an agent willing to pay for it (the demand side in a labor market) and involves an opportunity cost. At first, we invert the roles of men and women in marriage markets and place women on the supply side and men on the demand side. A woman  $F_i$  then follows decision rule:

- (3) If  $y_{ii} \geq \text{critical value} \rightarrow F_i$  supplies her work in the market for  $WIH_{ii}$  in which women  $F_i$  and men  $M_i$  marry each other.

Given that the quantity is now time, price  $y$  can be interpreted as a wage and may take the form of access to income or goods otherwise not available to the partner performing *WIH*.

The supply is upward-sloping: the higher the  $y_{ii}$  that is offered to  $F_i$  women by men  $M_i$  in a market for  $WIH_{ii}$  the more they are likely to switch from other types of substitutable husbands to marriage to an  $M_i$  type. Furthermore, the supply is upward-sloping because individuals would rather spend their time in leisure than at work, regardless of whether the work benefits an employer or a spouse. Formally the supply of  $WIH_{ii}$  can be derived as the result of an optimization by women  $F_i$  who maximize utility derived from their own leisure, own *WIH*, own labor, purchased goods and services, and possibly from their partner's *WIH*, subject to an individual time constraint and an individual income constraint (Grossbard-Shechtman 1984).<sup>3</sup>

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<sup>2</sup> This is also found in Grossbard-Shechtman's (1984) second model that also assumes multiple types of men and women. There *WIH* is called 'household labor'.

<sup>3</sup> Spouses' willingness to pay gives power to individuals who perform *WIH* work, in part because they can threaten that they will stop producing what benefits their spouses. There are therefore parallels

A man  $M_i$  follows this decision rule:

- (4) If  $y_{ii} \leq$  critical value  $\rightarrow M_i$  has a demand for marriage with  $F_i$  in the sense that he is willing to pay (in the form of an income transfer or access to goods) for her work in marital household production in the  $WIH_{ii}$  market.

The demand is downward-sloping: the higher  $y_{ii}$  the less men  $M_i$  are willing to form couples with women  $F_i$  as they switch to marrying types of substitutable women with less expensive  $WIH$ , to performing the household production themselves, or to commercial services (see Grossbard-Shechtman 2003).

In equilibrium a value  $y_{ii}^0$  is established where demand and supply for  $WIH_{ii}$  intersect (see Figure 2). This value is expected to be a function of a vector of female characteristics  $X_i$  that can possibly shift the supply of  $WIH_{ii}$  by women  $F_i$  and a vector of male characteristics  $Z_i$  that can possibly shift the demand for such work:

$$(5) y_{ii} = f(X_i, Z_i)$$

Likewise there are markets for the  $WIH_{ji}$  of men of type  $M_j$  willing to supply their  $WIH$  to women  $F_i$  in which equilibrium values of  $y'_{ji}$ , the ‘wage’ that men may receive for such  $WIH_{ji}$  work, are established.

This model of hedonic labor-in-marriage markets also leads to Becker’s insights that “prices” (or shares of gains from marriage) in marriage markets are a function of capital levels affecting household productivity and of sex ratios. In addition, framing marriages as exchanges of work for money or goods helps identify another group of variables likely to affect equilibrium “prices”: characteristics affecting the (dis)utility of  $WIH$  work.

### 2.1 *Compensating Differentials*

In the context of regular labor markets, compensating differentials are found when more enjoyable work conditions offered by an employer are associated with a larger supply of

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between our approach and that of Apps and Rees (1988), Chiappori (1988) and bargaining models such as McElroy and Horney (1981).



workers and therefore lower wages (see for instance Hamermesh and Wolfe 1990). Conversely, employers offering less enjoyable work conditions have to pay higher wages. Likewise we expect there to be compensating differentials in marriage: men who want to use women's *WIH* work and are willing to pay for it, but have a characteristic considered as less desirable in markets for such *WIH*, will have to pay a higher  $y$  than comparable men with a more desirable value of that characteristic. This follows from women's larger supply of *WIH* in markets for men with more desirable characteristics.

## 2.2 White women and intermarriage

For example, consider markets in which White women  $F_w$  are the suppliers of *WIH* and the male characteristic  $Z$  is a dummy for White. Women  $F_w$  are choosing between Black men  $M_B$  and White men  $M_w$ . To the extent that some White women prefer to marry White men (possibly due to White discrimination against Blacks not totally reciprocated by Black discrimination against Whites), it follows that White women's market supply of *WIH* to Black men in the market for  $WIH_{wB}$  (where the first subscript stands for the woman's group) will be smaller than their aggregate supply of *WIH* to White men in the market for  $WIH_{ww}$ . If all other factors are controlled for and the demand in both markets is the same, comparative statics analysis comparing the two markets leads to the conclusion that  $y_{wB} > y_{ww}$ . It is thus predicted that White women will obtain a higher  $y$  for working in *WIH* if they are in couple with Black men than if they are endogamous. This holds even if they personally do not discriminate and if they have no intention to divorce and threaten their husbands with their relatively high marriage market power.

We do not have data on  $y$  or on  $y \cdot WIH$  (the product of  $y$  and hours of *WIH*), intra-household transfers interpreted as payments for women's work in *WIH* per given period (day, week, or month). However, we can assume that unobserved intra-household transfers  $y \cdot WIH$  are a function of income, number of children, and other relevant variables. If we keep  $y \cdot WIH$  constant—the equivalent of keeping earnings constant in labor market analysis—then a higher  $y$  implies fewer hours of *WIH*. We thus predict that White women married to Black men will supply fewer hours of *WIH* than endogamous White women.

We do not have data on *WIH* either, as existing time use surveys do not ask respondents “who benefits from their household production”. However, we have time that individuals in couples devote to household ‘chores’  $t$ . Such ‘chores’ often include the same two core elements defining *WIH*: (1) opportunity costs to the individuals performing the activity and (2) benefits to spouses not performing the activity, and therefore spouses’ willingness to pay for it. We assume that  $t$ , time spent on chores, is a good indicator of *WIH*, work in marital household production benefiting the spouse. If a White woman’s earnings from chores  $y_t$  are constant regardless of whether her husband is Black or White then  $y_{WW} > y_{BW}$  implies that  $t_{WW} < t_{BW}$ , indicating that:

1/ White women in couple with Black men will spend less time performing chores  $t$  than comparable endogamous White women.

### 2.3 Black women and intermarriage

If White men prefer to marry White women (possibly the result of incompletely reciprocated discrimination against Blacks) a comparison of markets for endogamous Black women and Black women married to White men implies  $y_{BB} > y_{BW}$ . With earnings from chores  $y_t$  constant for Black women, regardless of whether their husband is Black or White, this implies that  $t_{BB} < t_{BW}$  and that:

2/ Black women in couple with White men will spend more time on household chores than comparable endogamous Black women.

### 2.4 The case of men

When men perform household work  $t$  they may also obtain an intra-household transfer that varies with their intermarriage status. Racial discrimination in marriage markets implies that *ceteris paribus* White men in couple with Black women will be ‘paid’ more for their  $t$  than their endogamous counterparts, i.e.  $y'_{WW} < y'_{BW}$ , where  $y'$  is a compensation that men receive from their wives. Holding their  $y't$  constant, this implies that  $t_{WW} > t_{BW}$  and that

3/ White men intermarried with Black women will work less at chores than endogamous White men.

As for Black men, the existence of White own-kind preferences exceeding those of Blacks leads us to predict  $y'_{BB} > y'_{WB}$ . With men's earnings from housework  $y't$  constant this implies that  $t_{BB} < t_{WB}$  and that:

4/ Black men married to White women will work more at chores than endogamous Black men.

The more observed 'chores' time  $t$  corresponds to the *WIH* concept the more these predictions are likely to be supported by empirical evidence. This is more likely:

a/ *on weekdays than on weekends*. On weekends, when both members of a couple are more likely to synchronize household production, performing the same household production activity may be more enjoyable than it is during the week. Also, the type of activities left for the weekend may be more enjoyable than the activities performed on weekdays (Hamermesh 2002, Jenkins and Osberg 2005, Connelly and Kimmel 2009). Consequently, the supply of weekday *WIH* is expected to lie to the left of the supply of weekend *WIH* and 'wages'  $y$  and  $y'$  are expected to be higher on weekdays than on weekends. Intermarriage differentials in  $t$ , our observed *WIH*, are therefore also expected to be larger on weekdays than on weekends.

b/ *for married than unwed*. Relative to unwed couples, married couples are more likely to establish implicit contracts involving the exchange of *WIH* for intra-household transfers of income or goods. Therefore, we expect higher  $yt$  or  $y't$  and more associations between intermarriage and chores for married than for unwed couples.

c/ *when respondents are not employed in the labor force* or they have limited working hours. Division of labor in the couple is likely to involve more chore-type activities if respondents are not employed or working few hours in the labor force than if they are fully employed. The higher  $yt$  or  $y't$  the more we expect to find associations between intermarriage and chores.

d/ *when spouses are fully employed* than when spouses who are not fully employed. In this case we expect more demand for respondents' *WIH* due to income and substitution effects and therefore higher  $yt$  or  $y't$  and more associations between intermarriage and chores.

### 3. Data and Methods

#### 3.1 Data and Definitions

We use the American Time Use Survey (ATUS)—the first federally administered, continuous survey on time use in the US—for the years 2003-2009 (see Hamermesh, Frazis and Stewart 2005). Respondents are randomly selected from a subset of households that have completed their eighth and final month of interviews for the Current Population Survey (CPS). They are interviewed (only once) about how they spent their time on the previous day. We restrict our analyses to non-retired/non-student married or cohabiting respondents between the ages of 21 and 65 who have time diaries that add up to a complete day (1440 minutes). Additionally, since we expect stronger associations between intermarriage and chores in the case of fully employed spouses, we eliminate cases of women with unemployed husbands who are less likely to compensate women for their *WIH*. We do not impose a symmetrical restriction on the male sample given that a high fraction of all women are not fully employed and this restriction would make us lose too many observations.

We define *Household Chores* in two ways. Both definitions follow Burda, Hamermesh, and Weil (2008) in the sense that these are activities that satisfy the third-party rule (Reid 1934) and they can possibly be substituted for market goods and services, own time or spouse's time. The more restrictive definition only includes activities for which women have negative income elasticities, implying that women would rather avoid these activities if they can afford to. These activities are more likely to benefit spouses and be considered as 'work-in-household'. More precisely we require that elasticities with respect to own years of schooling (a proxy for permanent income) and own actual earnings be below -0.01.<sup>4</sup> The following activities fit this criterion: *interior cleaning, laundry, grocery shopping, kitchen and food clean-up, travel related to housework, travel to/from the grocery store, and food and drink preparation*. They correspond to what has been referred to as "female tasks" e.g. by Cohen (1998, 2004),

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<sup>4</sup> Hamermesh (2007) finds a negative relationship between income and time allocated to household production.

Hersch and Stratton (2002), and Sevilla-Sanz, Gimenez-Nadal and Fernandez (2010).<sup>5</sup> We call these activities ‘*chores*’.

Given that the time devoted to household production by men in the U.S.A. has been shown to be limited relative to that of women (Aguiar and Hurst 2007, Hersch 2008) we use a broader and widely used definition of chores for men: total time devoted to household production activities excluding childcare. We exclude childcare as a number of studies have reported that parents found spending time with their children among their more enjoyable activities (Juster and Stafford 1985, Robinson and Godbey 1997, Kahneman et al. 2004, Kahneman and Krueger 2006). Following Aguiar and Hurst’s (2007) definition of “unpaid work” we include the following activities in our definition of *Total Housework*: meal preparation and cleanup, laundry, ironing, dusting, vacuuming, indoor household cleaning, indoor design and maintenance (including painting and decorating), time spent obtaining goods and services (i.e., grocery shopping, shopping for other household items, comparison shopping), and time spent on other home production such as home maintenance, outdoor cleaning, and vehicle repair. We also use *Total Housework* in robustness checks for our estimations for women.

Black is defined as being “Black only” or “Black-White”, according to the CPS classification that also includes categories such as Black-Asian and Asian-White. White is defined as being “White only”. We have also estimated our models with alternative definitions of Black (e.g., excluding the category “Black-White”). Results are consistent and available upon request.

Table 1 shows means and standard deviations for some of the variables used in the analysis for both men and women. Men devote much less time than women to both *Chores* and *Total Housework*: 2 and 3.5 daily hours to *Chores* and *Total Housework* in the case of women, versus 0.6 and 1.8 hours in the case of men. Consequently our study focuses on explaining women’s time devoted to chores. Given that our data includes a much larger number of White respondents than Black respondents (15,638 White women and 15,627 White men versus 1,011 Black women and 1,279 Black men) we first analyze our White samples.

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<sup>5</sup> Hersch and Stratton (2002) and Sevilla-Sanz et al. (2010) show that women concentrate on routine and more time-intensive housework, such as cooking and cleaning, whereas men are more active in sporadic, less time-intensive tasks, such as gardening and repairs.

Column (2) describes the data for White women with employed husbands, Column (3) for Black women with employed husbands, Column (5) for White men and Column (6) for Black men. It can be seen from columns (2) and (3) that White and Black women in our sample devote 2.14 and 1.84 hours per day to chores, and that slightly less than 1% of White women have a Black husband or partner while the percentage of intermarriage (including unmarried cohabitation) is much larger for Black women (5%). On average, White and Black women in our sample are 41 years old, 24% and 29% have an older husband, women’s log hourly predicted wage stands at 2.6 and their partners’ actual log hourly wage at 2.8. Columns (5) and (6) show that White and Black men in our sample devote 1.83 and 1.71 hours per day, respectively, to *Total Housework*. The percentage intermarried is about 40 times higher for Black men than for White men: 3 per thousand versus 12%. Black men are more than twice as likely to be intermarried than Black women, which is consistent with other studies (e.g., Kalmijn 1993, 1998, Blackwell and Lichter 2000, Crowder and Tolnay 2000).

### 3.2 Empirical Strategy

We start with regressions of *Chores* performed by women.

#### 3.2.1 Simple regressions

We run OLS regressions of time in household chores as a function of intermarriage and of a number of characteristics of respondents and their spouses as well as characteristics of the household. We estimate the following equation:

$$(6) \text{Chores}_{ijt} = \alpha_3 + \text{intermarried}_{ijt} \delta_1 + X_{ijt} \delta_2 + \varepsilon_{ijt}$$

where *Chores* is the time devoted to household chores by woman “i” in state “j” and year “t”, measured in hours per day, and *Intermarried* is a dummy variable indicating whether a respondent “i” in state “j” and year “t” is “married” to a partner who is Black in the case of White respondents or White in the case of Black respondents. In light of the conceptual framework we expect to find  $\delta_1 < 0$  in the case of White respondents and  $\delta_1 > 0$  in the case of Black respondents.

Vector *X* includes a number of demographic and economic characteristics of wives and husbands as well as household characteristics (see Appendix Table A3 for a summary of all variable definitions). It includes age of the respondent (and its square) and a dummy *Older Husband* that takes value “1” if the husband is at least five years

older than the wife, and “0” otherwise. The five year age difference was chosen given that on average in the U.S.A. men are 1 ½ to two years older than women at first marriage, with the age difference being slightly larger for unmarried couples. We wanted to capture an above-average age difference that could possibly translate in a disadvantage for men competing in the marriage markets (*ceteris paribus*; see Grossbard-Shechtman and Neuman 1988).  $X$  also includes wife’s and husband’s education, wife foreign-born, and husband foreign-born. In addition, vector  $X$  includes a dummy for disability and own predicted wage and spouse’s predicted wage. Ever since Becker (1965) it has been assumed that the wage is the opportunity cost of the time devoted to household production. Accordingly, there is a large empirical literature on time use examining the impact of wages and income on time allocation, including Hamermesh (1990), Kalenkoski et al. (2005; 2007), Friedberg and Webb (2006), Bloemen and Stancaelli (2008), Connelly and Kimmel (2009), Bloemen, Pasqua and Stancaelli (2010) and Stancaelli and Stratton (2010). We expect individuals with higher predicted wages to perform fewer chores. Spouse’s predicted wage is expected to be positively related to chores due to an income effect and substitution effects.<sup>6</sup>

We calculate predicted wages using a large CPS (Current Population Survey) sample and the Heckman (1979) two-step technique. We compute the log of hourly wages to allow for non-linear effects and bootstrap the standard errors in order to obtain more robust standard errors. Variables used to identify the employment equation are the number of children of different ages in the household, respondent’s student status and ownership of place of residence, unemployment rate in the state of residence, and whether any household member owns a business or farm. Variables used to predict wages are marital status, no high school education, more than high school education, age and its square, dummies for Black and Hispanic, region of residence, and a dummy for urban. Race of respondent, region of residence, and urban are computed according to CPS categories.

$X$  in equation 6 also includes household non-labor income defined as the total family income of all family members during the last 12 months minus husband’s and wife’s annual earnings. This includes business income, rental income, pensions,

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<sup>6</sup> We use predicted wage (based on the larger CPS sample) even though all men in our sample are employed and have actual wages in order to separate a possible effect of wife’s chores on husband’s wage. Men and women’s chores may be complements or substitutes but we don’t have data on time use of both members of the couple.

dividends, interest, Social Security payments, and any other non-labor income received by family members who are 15 or older. Total family income ranges from less than \$5,000 to \$150,000, where each value of the variable represents the mid-point of the income interval. Non-labor income is set at zero when annual earnings exceed total family income. A negative relationship between income and time allocated to home production has previously been reported, e.g. by Robinson and Godbey (1997), Hamermesh (2007) and Aguiar and Hurst (2007), possibly the result of outsourcing of home production. Restricting chores to activities with negative income and education elasticities is expected to limit income effects.

Household characteristics in our principal equation also includes number of children in the household aged 0-4, 5-12, and 13-17. We expect a positive correlation between number of children and time devoted to household chores, with this correlation being higher for younger children.  $X$  includes whether the individual lives in an urban area, and region (the reference being West).

Two variables that are omitted from  $X$  on purpose are relationship status (married or not) and respondent's labor force participation. These are endogenous to the decision on how much time to devote to chores. We take account of these factors by estimating separate regressions by relationship and labor force status. In the case of labor force status we distinguish between respondents with no or low labor force participation (working less than 10 hours a week, LLFP) and those working 10 hours a week or more. In line with the theory section, we also estimate separate equations for weekdays and weekends and for married and unwed couples. When not separating between weekdays and weekend and in the weekday regressions we control for observation day, the reference being Friday.

We test for robustness of our estimates for women by reestimating our models using *Total Housework* instead of *Chores*.

### 3.2.2 *Three-equation models*

Out of concern for the non-randomness of matching into interracial couples and to separate this non-randomness in matching from the non-randomness in the allocation of time we follow an approach similar to that used by Meng and Gregory (2005), Fryer (2007), Furtado and Theodoropoulos (2011) and Furtado (2012). They estimated simultaneously economic success and intermarriage between immigrants and natives. In



our case, we provide a simultaneous estimation of intermarriage and White women's time in chores (the number of Black women who intermarry is not sufficiently large to allow us to estimate the three equations for the sample of Black women). To the extent that women whose partners are working may not be randomly selected, we include a third equation capturing selection into marriage with an employed husband. We estimate this model for all White women (including those whose partners are not employed). The two equations with a dichotomous dependent variable are:

$$(7) \quad \text{Husband Black}_{ijt} = \alpha_1 + P_{jt}\beta_1 + \text{Loving}_{jt}\beta_2 + Y_{ijt}\beta_3 + \varepsilon_{ijt}$$

$$(8) \quad \text{Husband Employed}_{ijt} = \alpha_2 + P_{jt}\gamma_1 + UE_{jt}\gamma_2 + Z_{ijt}\gamma_3 + \varepsilon_{ijt}'$$

These are estimated using the Bivariate Probit method. The third equation is a modified equation 6 that includes the inverse of the Mills ratio (denoted by  $\lambda$ ) indicating whether the husband is employed and the couple intermarried. We predict values for White women using the bivariate probit results, and then calculate the inverse of the Mill's ratio as the ratio of the probability density function and the cumulative distribution function of the variable:

$$(6') \quad \text{Chores}_{ijt} = \alpha_3 + \text{Husband Black}_{ijt} \delta_1 + X_{ijt} \delta_2 + \lambda_{ijt} \delta_3 + \varepsilon_{ijt}''$$

To identify this system of equations we include variables that are unique to each equation and therefore serve as instruments. The variables used to identify the intermarriage equation (7) are  $P$  (the availability ratio) and 'Loving' dummies. The availability ratio is defined as  $P_{jt} = \frac{n_{jt}}{N_{jt}}$ , where  $n$  is the number of White men available for a woman in state "j" and year "t", and  $N$  is the total number of all men of marriageable age observed in state "j" and year "t". The state is the state of residence at the time of the survey. Respondent's age is defined in 5-year age groups. Given that the difference in mean age in marriage in the U.S.A. is close to 2 years we use men who are 2 years older than the women (Amuedo-Dorantes and Grossbard 2007). We expect that the more White men are available the less White women are likely to be married to Black men.

Equation (7) also includes 'Loving' dummies to control for whether the state of residence has had anti-miscegenation laws, i.e. laws that forbade marrying across racial lines, and whether states with such laws were forced to repeal them as a result of the

1967 U.S.A. Supreme Court decision ‘Loving v. Virginia’ (388 US 1). This is based on Fryer (2007) who considers four groups of states: i) states that never had laws against Black-White marital unions; ii) states that repealed such laws before 1900; iii) states that repealed such laws after 1900, but before 1967; and iv) states that repealed their laws only after the Supreme Court ruling. These are the states of residence at the time of the survey. We combined the states that voluntarily repealed their anti-miscegenation laws, which implies two dummies: one for states that *never* had anti-miscegenation laws, another one for states that were forced to repeal such law after the Supreme Court ruling. Unfortunately we do not have information on the state of residence at the time of couple formation. We expect White women to be less likely to be married to Black spouses in states that repealed their miscegenation laws only after the ‘Loving’ decision.

To identify selection for an employed spouse (equation 8) we use as instruments the state unemployment rate, the state minimum wage and urban vs. rural residence. Both equations (7) and (8) also include most of the same control variables included in the chores equation.

## 4. Results

### 4.1 White women

Table 2 shows the results of estimating equation 6 indicating the time devoted to *Chores* by White women with employed husbands.<sup>7</sup> Estimations of predicted wages, one of the explanatory variables, are found in Appendix Table A1. The reference category in Column (1) is a childless White woman living in the West and observed on Friday. It can be seen from that column that relative to endogamous White women intermarried White women devoted about 0.33 fewer hours per day to *Chores*:  $\delta_1 < 0$  as predicted by the theoretical framework. As predicted we also find that  $\delta_1 < 0$  holds more (a) for weekdays than for weekends (a comparison of cols. (2) and (3) reveals that our finding only holds for weekdays and that the effect of intermarriage amounts to a half hour on weekdays); (b) for married than for unwed women (a comparison of cols. (4) and (5) reveals that our finding only holds for married women and that the effect of intermarriage is 0.4 of an hour per day for married women); and (c) for women with limited labor force participation (LLFP) than for fully employed women (a comparison

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<sup>7</sup> Results for all women, including those whose husbands are not employed, are available upon request.

of cols. (6) and (7) reveals that our finding only holds for women with LLFP and that for women with LLFP the effect of intermarriage rises to 0.7 of an hour less per day).

Not only does Table 2 bring support to these four predictions, but it reveals that  $\delta_1$ , interpreted here as the effect of intermarriage, is quite large: in absolute value the presence of a Black partner matters as much as (and sometimes more than) the presence of a child under age 5 when it comes to White women's allocation of time to chores.

#### **4.2 Black women**

Table 3 shows the parallel results for Black women with employed husbands. Here the theory led to a prediction of  $\delta_1 > 0$ . Column (1) reveals that for all Black women in our sample the coefficient of intermarriage is positive and amounts to an additional 0.4 hour of chores. However, even though in absolute value this coefficient is slightly larger than the corresponding coefficient for White women, it is not statistically significant. This lack of statistical significance is related to the small sample size.

As in the case of White women, our prediction regarding the effect of intermarriage holds more for weekdays than for weekends: column (2) reveals that intermarried Black women devote 1.2 more hours to chores on weekdays than endogamous Black women. This result is statistically significant at the 90% level. In absolute terms, this coefficient is much larger than the equivalent coefficient we found for White intermarried women. This contrast is not due to higher levels of household production for Black women: overall Black women spend less time on chores than White women (2.1 hours of chores for all White women and 1.8 hours for all Black women; the Black-White differences are similar on weekends and weekdays). In contrast to the positive  $\delta_1$  that we find on weekdays we find that Black women perform fewer chores on weekends if they are intermarried. A possible interpretation for the negative sign of intermarriage on weekends is that on weekends couples tend to synchronize their housework and that relative to endogamous Black couples this type of intermarried couple is less likely to synchronize housework.<sup>8</sup>

When distinguishing between married and unwed Black women we do not find a contrast in the effect of 'intermarriage' for those two groups. The coefficient of intermarriage is about the same (and insignificant) regardless of whether couples officially tied the knot or not. To the extent that the larger effect of intermarriage for

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<sup>8</sup> This can't be tested given that the ATUS does not contain the time use of both members of a couple.

married White women (relative to unwed ones) reflects a higher likelihood that married couples established an implicit contract regarding the exchange of chores for money (as had been hypothesized) then the absence of a larger coefficient of intermarriage for married Black women (versus unwed ones) could indicate that such implicit contracts are less frequent in marriages involving Black women than in those involving White women. Such lower frequency is consistent with Black women being less likely to obtain compensations  $y$  for their *WIH* than White women.

Column (5) indicates that Black women with no or limited labor force participation devote 2.2 more hours of chores per day if intermarried than if endogamous. In contrast, the coefficient of intermarried is insignificant in the case of employed Black women. Given that there are only 9 intermarried couples in which Black women have no or limited LFP we take this as suggestive evidence only.

Next, we deal with the question of whether the statistically significant coefficients of intermarriage that we reported indicate effects of intermarriage on household chores. Alternatively, they could indicate a selection mechanism whereby White women who do fewer household chores and Black women who do more chores are more likely to intermarry. A third possibility is that an unaccounted variable simultaneously causes intermarriage, higher levels of chores among Black women, and lower levels of chores among White women. Given the sample sizes we only try to disentangle these causalities for White women.

#### **4.3 Taking account of selection**

Table 4 shows the results of estimating equations (7), (8) and (6') on the time devoted to *Chores* by White women, considering selection into intermarriage and into marriage with an employed partner or husband. Columns (1) and (2) show the results for each selection equation. As can be seen the instruments used to identify the two equations (availability ratio for interracial marriages, and state unemployment rate for employment of the partner) have negative signs and are statistically significant, implying that our regressions have been correctly identified and that we have valid instruments. Column (3) shows the result of estimating equation (6') containing the inverse of Mill's ratio in order to control for selection.

We observe that White women in couple with Black men devote 0.4 of an hour less per day to chores once these selection issues have been controlled for. That result is

very similar to the 0.33 coefficient of chores in the simple model reported in Table 2 (col. (1)). Furthermore, the rest of the results and the R-squared of regression 3 in Table 4 and regression 1 in Table 2 are very similar to the results of the OLS regressions based on equation (6) and the inverse of the Mill's ratio reaches low significance (below the 95% level). It thus appears that selection issues do not play a major role here. Therefore the rest of our estimations are based solely on simple equations of chores and housework.

#### **4.4 Robustness check using an alternate definition of chores**

Table 5 shows the results of estimating equation (6) for both White and Black women when we use a broader definition of time devoted to household production: *Total Housework* as defined above. Results for women are robust to alternative definitions of time devoted to household production. As in the regressions of Table 2 using the more restricted 'chores' measure of housework we observe in Columns (1) to (4) of Table 5 that intermarried White women devote less time to total housework than endogamous White women, and that this finding is stronger on weekdays (Column (2)), for married women (Column (3)), and for women with limited labor force participation (Column (4)). We also find that Black women devote more time to total housework if intermarried than if endogamous (Column (5)), although the results are at a low level of statistical significance (again, this may be due to the low number of observations and interracial marriages).

#### **4.5 Results for men**

Table 6 shows the results of estimating equation (6) for time devoted to *Total Housework* by White men. The reference category in Column (1) is a childless White man living in the West and observed on Friday. It can be seen from that column that relative to their endogamous counterparts intermarried White men devote 0.6 of an hour less to total housework per day. As was the case for women, we obtain stronger effects on weekdays than on weekends and the results only apply to married men.

Table 7 shows the results of estimating equation (6) for time devoted to *Total Housework* by Black men. Here we find that  $\delta_1 > 0$  for Black men married to White women, but only for men with limited labor force participation (Column (5)): for this group intermarriage is associated with a reduction in housework of 1.7 hours per day. Again, we must keep in mind that there are few observations and very few intermarried

couples in which men have limited labor force participation, which helps explain why these results are only statistically significant at the 90% level.

#### **4.6 Other findings**

Wife's predicted wage is associated with fewer hours of chores in the case of White women using 'total housework' (Table 5, cols. (1) to (3)) and in some cases using 'chores' (Table 2, col. (4)). We expected weaker income effects on women's 'chores' than on their 'housework' due to the way that we defined those activities. Wife's predicted wage also takes on a negative sign in the case of chores supplied by Black women with no or low labor force participation (Table 3). It is also positively associated with White men's household work (Table 6). Wife's education is associated negatively with hours of chores in the case of White women and using the strict definition of chores (Table 2), and positively with household work of White men with limited labor force participation (Table 6).

Husband's predicted wage is negatively associated with own housework in the case of White men. A number of estimated regressions show that women work less at chores if their husbands are more educated. More educated men, Black and White, also work more at chores than their less educated counterparts, especially on weekends. Men do fewer chores in the South than in the West.

The presence of children adds significantly to the time devoted to chores in most regressions. In absolute value the presence of a child under age 5 does not affect White women's allocation of time to chores very differently than the presence of a Black husband or partner. In the case of Black women on weekdays, according to Table 3 a White husband is associated with more extra chores than the presence of a young child. Children age 12 to 17 add to the chores work of White women across all samples, but that is not so for all samples of Black women. Children also add to men's housework hours, but not as consistently as they do for women.

#### **4.7 Interpretation**

We interpret the effects of intermarriage that were found as evidence of compensating differentials in marriage markets for Black and White Americans. That White women work less at chores if intermarried than if endogamous is consistent with intermarried White women obtaining a higher  $y$  for their  $WIH$ , work in household production benefiting the spouse. Black women appear to work more at chores if intermarried than

if in an endogamous relationship, which is consistent with their obtaining a lower  $y$  for their *WIH* if intermarried than if endogamous. We also find that some Black men do more housework if intermarried than if in an endogamous relationship, and that White men do less housework if intermarried than if endogamous. These findings can also be explained in terms of our marriage market analysis based on the assumption that Whites' preferences for endogamy exceed those of Blacks.

As predicted our findings apply more to weekdays than to weekends, when housework is less likely to be considered 'work' and to entail an opportunity cost. They also apply more to respondents with limited labor force participation in couples where both respondent and spouse are more likely to consider weekday housework as 'work'. In many instances we find more evidence of compensating differentials for married than for unwed couples, suggesting that intra-couple exchanges of *WIH* for income or goods are more likely to occur among married couples.

Alternative models dealing with in-marriage distribution such as bargaining and collective models may also explain some of these results. They also imply racial differentials in distribution of the product of marriage, which can possibly imply differentials in time use. However, an explanation based on bargaining or collective models would need to assume that either the respondents and their partners have asymmetric racial preferences (which we assumed are found in hedonic markets) or that couples consider divorce and their remarriage options are functions of these asymmetric racial preferences. In contrast, our predictions apply even if the members of a particular couple are unprejudiced (have symmetric racial preferences) and do not consider divorce or remarriage as relevant options. The driving force is demand and supply in the multiple hedonic marriage markets in which respondents are likely to have participated when they were looking for partners.

## 5 Conclusions

This paper has analyzed time devoted to household production activities by White and Black men and women in the U.S.A. in light of a theoretical framework based on Becker's (1973) hedonic marriage market model (or second Demand and

Supply model of marriage) and the concept of *WIH* defined as work in marital household production for the benefit of a spouse (where ‘marital’ and ‘spouse’ also include unwed couples). According to this model intra-marriage distribution varies with the gain from marriage and is a function of household production. In the past Becker’s model has led to insights regarding the effects of sex ratios and relative wages on the distribution of the gains from marriage and therefore on individual consumption and time use. However, the framework that he developed makes room for other factors that could possibly affect outcomes such as time use. Linking Becker’s hedonic marriage market model to comparative statics models commonly applied to labor markets, as we did here thanks to the concept of Work-In-Marriage, *WIH*, led us to look for Compensating Differentials in Marriage and therefore for associations between racial intermarriage and time devoted to household production.

Multiple markets for *WIH* are defined for men and women of different ethnicities, races, age groups, religions, etc. Compensating Differentials in Marriage originate to the extent that members of one group are preferred over members of another and these preferences are not completely reciprocated. This may occur when one group is discriminated against and/or is considered as having lower status. Supplies of *WIH* to beneficiaries of *WIH* belong to higher-status groups will be large relative to supplies to lower-status beneficiaries, and consequently higher-status beneficiaries will pay lower ‘prices’ when marrying spouses from lower-status groups who perform chores of benefit to them. At given incomes this translates into more chores performed by spouses from lower status group for the benefit of members of a preferred group and into fewer chores performed by spouses from higher status groups for the benefit of members of lower status groups. We expect statistical associations between intermarriage and chores to be the strongest in circumstances when household production is most likely to be considered as *WIH* and to be compensated by spouses: on weekdays, when respondents have limited involvement in the labor force, when couples are actually married, when respondents have low or no participation in the labor force, and when spouses have high levels of labor force participation.

We apply this model to the case of Whites and Blacks in the U.S.A. Assuming that being White carries a higher status than being Black leads to predictions of Blacks performing more household chores when intermarried than when endogamous, the opposite prediction applying to Whites. As predicted, we find that: (a) White women in



couple with Black partners devote less time to chores (0.33 fewer hours per day) and housework (0.6 fewer hours per day) than their endogamous counterparts; (b) White men also spend less time on housework if intermarried with Black women than if married to Whites, but estimated effects are smaller and limited to specific subsamples; (c) When their partners are White, Black women devote more time to chores (1.2 more hours per weekday) and housework (1.34 more hours per weekday) than when endogamous; and (d) Intermarried Black men with low or no labor force participation do 1.7 hours of housework more than their endogamous counterparts. The size of the coefficients is large when compared to that of other factors associated with chores such as the presence of young children. As predicted, we also find stronger effects of intermarriage on weekdays, for married respondents, and for respondents with low or no labor force participation. In the case of women our estimates are limited to respondents with employed spouses.

Results are more robust in the case of White women than in the case of Black women. For White women the results apply to a larger set of subsamples and we are able to establish that the ‘effects’ of intermarriage are not spurious: we estimate a three-equation model that endogenizes intermarriage and husband’s employment status and find that accounting for selection makes little difference. Results also apply to a larger set of subsamples in the case of White men than in the case of Black men. In the case of Black men, intermarriage effects are only found for men with limited labor force participation (married or cohabiting). The low number of Blacks in the ATUS and relatively low intermarriage rates may be conditioning the analysis. A more in-depth analysis with a larger dataset is needed to support the results for Blacks.

In our study the price that Black men and women appear to pay took the form of extra time they spend on household production and reduced amount of household production that their partners supply for their benefit when they are in couple with a White partner or spouse. This suggests that being Black carries lower status in U.S.A. marriage markets than being White. While our analysis offers an original way of examining whether Blacks have lower status than Whites in the U.S.A. its outcomes are consistent with previous findings, cited in the introduction, that suggest that Blacks have lower status than Whites in marriage and labor markets in the U.S.A.

## REFERENCES

- Aguiar, M., and E. Hurst. (2007). "Measuring Trends in Leisure: The Allocation of Time Over Five Decades." *Quarterly Journal of Economics* 122(3): 969-1007.
- Altonji J. G., and R. Blank. (1999). "Race and Gender in the Labor Market." in *Handbook of Labor Economics*, Vol 3C, Ashenfelter and Card (eds.), pp. 3143-3260, North Holland.
- Amuedo-Dorantes, C., and S. Grossbard. (2007). "Marriage Markets and Women's Labor Force Participation." *Review of Economics of the Household* 5:249-278.
- Apps, P. F. and R. Rees. (1988). "Taxation and the Household." *Journal of Public Economics* 35:355-369.
- Becker, G. S. (1965). "A Theory of the Allocation of Time." *Economic Journal* 75(299): 493-517.
- \_\_\_\_\_. (1973). "A Theory of Marriage: Part I." *Journal of Political Economy* 81(4): 813-846.
- \_\_\_\_\_. (1981). *A Treatise on the Family*. Cambridge, MA.: Harvard University Press.
- Bergmann, B. (1971). "The Effects on White Income of Discrimination in Employment." *Journal of Political Economy* 79(2): 294-313.
- Bittman, M., P. England, L. Sayer, N. Folbre, and G. Matheson. (2003). "When Does Gender Trump Money? Bargaining and Time in Household Work." *American Journal of Sociology* 109(1): 186-214.
- Blackwell, D. L., and D. T. Lichter. 2000. "Mate Selection Among Married and Cohabiting Couples." *Journal of Family Issues* 21(3): 275-302.
- Bloemen, H., S. Pasqua, and E. Stancanelli. (2010). "An Empirical Analysis of the Time Allocation of Italian Couples: Are Italian Men Irresponsible?" *Review of Economics of the Household* 8(3): 345-369.
- Bloemen, H., and E. Stancanelli. (2008). "How Do Parents Allocate Time? The Effects of Wages and Income." *IZA Discussion Paper* no 3679.
- Burda, M., D. Hamermesh and P. Weil (2008). "The Distribution of Total Work in the U.S.A. and EU." in *Working Hours and Job Sharing in the EU and USA: Are*

- Americans Crazy? Are Europeans Lazy?* Boeri, Burda and Kramarz (eds.), Oxford Univ. Press.
- Burke, M. (2008). "Colorism" in *International Encyclopedia of the Social Sciences*, Vol.2, Darity Jr. (ed.) Detroit: Thomson Gale.
- Chiappori, P.-A. (1988). "Rational household labor supply." *Econometrica* 56(1): 63-90.
- Chiswick, B.R., and C. Houseworth (2011). "Ethnic Intermarriage Among Immigrants: Human Capital and Assortative Mating." *Review of Economics of the Household* 9(2): 149-180.
- Choo, E., and A. Siow. 2006. "Who Marries Whom and Why." *Journal of Political Economy* 114(1): 175-201.
- Cohen, P. N. (1998). "Replacing Housework in the Service Economy." *Gender and Society* 12(2): 219-232.
- \_\_\_\_\_ (2004). "The Gender Division of Labor: 'Keeping House' and Occupational Segregation in the United States." *Gender and Society* 18(2): 239-252.
- Connelly, R., and J. Kimmel. (2007). "Determinants of Mothers' Time Choices in the United States: Caregiving, Leisure, Home Production, and Paid Work." *Journal of Human Resources* 42(3): 643-681.
- \_\_\_\_\_ (2009). "Spousal Influences on Parents' Non-Market Time Choices." *Review of Economics of the Household* 7(4): 361-394.
- Crowder, K.D., and S. E. Tolnay. 2000. "A New Marriage Squeeze for Black Women: The Role of Racial Intermarriage by Black Men." *Journal of Marriage and Family* 62(3): 792-807.
- Darity, W. A., J. Dietrich, and D. K. Guilkey. (2001). "Persistent Advantage or Disadvantage? Evidence in Support of the 'Intergenerational Drag Hypothesis.'" *American Journal of Economics and Sociology* 60: 435 - 470.
- Friedberg, L., and A. Webb. (2006). "The Chore Wars: Household Bargaining and Leisure Time." *The Selected Works of Anthony Webb*, [http://works.bepress.com/anthony\\_webb/subject\\_areas.html](http://works.bepress.com/anthony_webb/subject_areas.html)

- Fryer, R.G. Jr. (2007). "Guess Who's Coming to Dinner? Trends in Interracial Marriages over the 20th Century." *Journal of Economic Perspectives* 21(1): 71-90.
- Furtado, D. (2012). "Human Capital and Interethnic Marriage Decisions." *Economic inquiry* forthcoming.
- Furtado, D., and N. Theodoropoulos (2011). "Interethnic Marriage: A Choice between Ethnic and Educational Similarities." *Journal of Population Economics* 24(4): 1257-1279.
- Goldsmith, A., D. Hamilton, and W. A. Darity Jr. (2007). "From Dark to Light: Skin Color and Wages Among African-Americans." *Journal of Human Resources* 42(4): 701-738.
- Grossbard, S.A. (2010). "How 'Chicagoan' are Gary Becker's Economic Models of Marriage?" *Journal of History of Economic Thought* 32(3):377-395.
- Grossbard-Shechtman, A. (1984). "A Theory of Allocation of Time in Markets for Labour and Marriage." *Economic Journal* 94(376): 863-882.
- \_\_\_\_\_ (1993). *On the Economics of Marriage*. Boulder, CO: Westview Press.
- \_\_\_\_\_ (2003). "A Consumer Theory with Competitive Markets for Work in Marriage." *Journal of Socio-Economics* 31(6): 609-645.
- Grossbard-Shechtman, S.A. and X. Fu (2002). "Women's Labor Force Participation and Status Exchange in Intermarriage: An Empirical Study in Hawaii ." *Journal of Bioeconomics* 4(3): 241-268.
- Grossbard-Shechtman, A.S., and S. Neuman. (1988). "Women's Labor Supply and Marital Choice." *Journal of Political Economy* 96(6): 1294-1302.
- Hamermesh, D. (1990) "Shirking or Productive Schmoozing: Wages and the Allocation of Time at Work," *Industrial and Labor Relations Review* 43(3): 121S-133S.
- \_\_\_\_\_ (2002) "Timing, Togetherness and Time Windfalls," *Journal of Population Economics* 15: 601-623.
- \_\_\_\_\_ (2007). "Time to Eat: Household Production under Increasing Income Inequality." *American Journal of Agricultural Economics* 89(4): 852-863.

- Hamermesh, D., H. Frazis, and J. Stewart. (2005). "Data Watch: The American Time Use Survey." *Journal of Economic Perspectives* 19(1): 221-232.
- Hamermesh, D., and J. Wolfe (1990). "Compensating Wage Differentials and the Duration of Wage Loss." *Journal of Labor Economics* 8(1): S175-S197.
- Hamilton, D., A. Goldsmith, and W. A. Darity Jr. (2009). "Shedding 'Light' on Marriage: The Influence of Skin Shade on Marriage of Black Females." *Journal of Economic Behavior and Organization* 72(1): 30-50.
- Heckman, J.J. (1979). "Sample Selection Bias as a Specification Error." *Econometrica* 47(1): 153-161.
- Hersch, J. (2008). "Profiling the New Immigrant Worker: The Effects of Skin Color and Height." *Journal of Labor Economics* 26(2): 345-386.
- Hersch, J., and L. Stratton. (2002). "Housework and Wages." *Journal of Human Resources* 37(1): 217-229.
- Hitsch, G.J., A. Hortaçsu, and D. Ariely. (2006). "What Makes You Click? — Mate Preferences and Matching Outcomes in Online Dating." MIT Sloan Working Paper 4603-06, February.
- Jenkins, S. P., and L. Osberg. (2005). "Nobody to Play with? The Implications of Leisure Coordination." in *The Economics of Time Use*, Hamermesh and Pfann (eds.), chapter 5, pp. 113-145, Elsevier.
- John, D., and B.A. Shelton. (1997). "The Production of Gender among Black and White Women and Men: the Case of Household Labor." *Sex Roles: A Journal of Research* 36:171-193.
- Juster, F.T., and F.P. Stafford. (1985). *Time, Goods, and Well-Being*. Ann Arbor, MI: Institute for Social Research.
- Kahneman, D., A. B. Krueger, D. Schkade, N. Schwarz, and A. Stone. (2004). "A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method." *Science* 306(5702): 1776-1780.
- Kahneman, D., and A. B. Krueger. (2006). "Developments in the Measurement of Subjective Well-Being." *Journal of Economic Perspectives* 20(1): 3-24.

- Kalenkoski, C., D. Ribar and L. S. Stratton. (2005). "Parental Child Care in Single-Parent, Cohabiting, and Married Couples Families: Time-Diary Evidence from the United Kingdom." *American Economic Review* 95(2): 194-198.
- \_\_\_\_\_. (2007). "The Effect of Family Structure on Parents' Child Care Time in the United States and the United Kingdom." *Review of Economics of the Household* 5(4): 353-384.
- Kalmijn, M. 1993. "Trends in Black/White Intermarriage." *Social Forces* 72(1): 119-146.
- \_\_\_\_\_. 1998. "Intermarriage and Homogamy: Cause, Patterns, Trends." *Annual Review of Sociology* 24: 395-421.
- McElroy, M. B. and M. J. Horney. 1981. "Nash Bargained Household Decisions: Toward a Generalization of the Theory of Demand." *International Economic Review* 22: 333-49.
- Meng, X., and R.G. Gregory. (2005): "Intermarriage and the Economic Assimilation of Immigrants." *Journal of Labor Economics* 23(1): 135-174.
- Meng, X., and D. Meurs. (2009). "Intermarriage, Language, and Economic Assimilation Process: A Case Study of France." *International Journal of Manpower* 30(1/2): 127-144.
- Nottmeyer, O. (2011). "Couple's Relative Labor Supply in Intermarriage." *IZA Discussion Paper No. 5567*, March.
- Reid, M.G. (1934). *Economics of Household Production*. J. Wiley & Sons.
- Robinson, J. P., and G. Godbey. (1997). *Time for Life: The Surprising Ways Americans Use Their Time*. Pennsylvania: Penn State University Press.
- Rosen, S. (1974). "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition." *Journal of Political Economy* 82(1): 34-55.
- Sayer, L.C., and L. Fine. (2011). "Racial-Ethnic Differences in US Married Women's and Men's Housework." *Social Indicators Research* 101(2): 259-265.
- Sevilla-Sanz, A., J.I. Gimenez-Nadal and C. Fernandez. (2010). "Gender Roles and the Household Division of Unpaid Work: Evidence from the Spanish Time Use Survey." *Feminist Economics* 16(4): 137-184.

- Smith, J.P., and F.R. Welch. (1989). "Black Economic Progress After Myrdal." *Journal of Economic Literature* 27(2): 519-64.
- Spanier, G. B., and P. C. Glick. (1980). "Mate Selection Differentials between Whites and Blacks in the United States." *Social Forces* 53(3): 707-725.
- Stancanelli, E., and L. Stratton. (2010). "Her Time, His Time, or the Maid's Time: An Analysis of the Demand for Domestic Housework." *IZA Discussion Paper* N 5253.

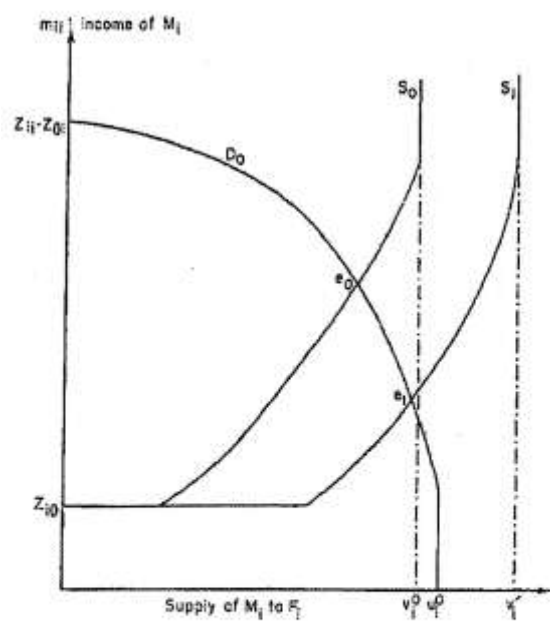
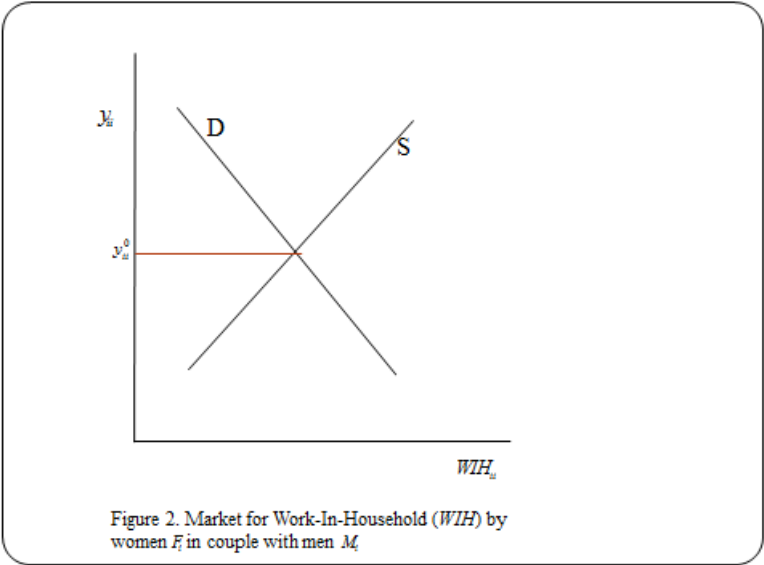


Figure 1 Becker's (1973) Fig. 2





**Table 1. Summary Statistics**

	(1) All Women		(2) White Women		(3) Black Women		(4) All Men		(5) White Men		(6) Black Men	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
<i>Chores all days</i>	2.119	(2.112)	2.139	(2.113)	1.838	(2.076)	0.616	(1.143)	0.606	(1.119)	0.722	(1.374)
<i>Chores weekdays</i>	2.004	(2.043)	2.027	(2.044)	1.690	(2.012)	0.503	(0.985)	0.488	(0.947)	0.675	(1.326)
<i>Chores weekend</i>	2.410	(2.251)	2.425	(2.255)	2.199	(2.188)	0.907	(1.433)	0.915	(1.428)	0.831	(1.477)
<i>Chores if married</i>	2.144	(2.121)	2.165	(2.122)	1.853	(2.097)	0.613	(1.144)	0.604	(1.121)	0.714	(1.375)
<i>Chores if unwed</i>	1.787	(1.960)	1.796	(1.969)	1.697	(1.880)	0.656	(1.135)	0.636	(1.087)	0.766	(1.370)
<i>Chores if LLFP</i>	2.977	(2.334)	3.003	(2.326)	2.576	(2.426)	0.964	(1.523)	0.963	(1.521)	0.972	(1.535)
<i>Chores if non-LLFP</i>	1.811	(1.936)	1.827	(1.939)	1.607	(1.898)	0.584	(1.095)	0.576	(1.072)	0.671	(1.334)
<i>Total Housework</i>	3.435	(2.762)	3.478	(2.765)	2.854	(2.651)	1.824	(2.350)	1.835	(2.362)	1.710	(2.215)
<i>Age Respondent</i>	41.022	(10.219)	41.028	(10.263)	40.932	(9.591)	43.269	(10.591)	43.261	(10.621)	43.349	(10.270)
<i>Older husband</i>	0.241	(0.428)	0.237	(0.425)	0.292	(0.455)	0.193	(0.395)	0.189	(0.391)	0.241	(0.428)
<i>Respondent LLFP</i>	0.264	(0.441)	0.266	(0.442)	0.238	(0.426)	0.086	(0.280)	0.078	(0.268)	0.170	(0.376)
<i>Partner LLFP</i>	-	-	-	-	-	-	0.710	(0.454)	0.708	(0.455)	0.726	(0.446)
<i>Respondent's hourly wage</i>	2.574	(1.193)	2.573	(1.210)	2.590	(0.940)	3.055	(0.301)	3.072	(0.299)	2.883	(0.266)
<i>Partner's hourly wage</i>	2.794	(0.305)	2.798	(0.306)	2.743	(0.290)	1.792	(1.410)	1.787	(1.418)	1.838	(1.321)
<i>Respondent's education</i>	13.990	(2.911)	13.989	(2.941)	13.997	(2.452)	13.756	(3.018)	13.783	(3.061)	13.463	(2.499)
<i>Partner's education</i>	13.937	(2.969)	13.958	(3.003)	13.647	(2.445)	13.897	(2.940)	13.906	(2.978)	13.803	(2.491)
<i>Respondent disabled</i>	0.023	(0.149)	0.021	(0.142)	0.054	(0.226)	0.033	(0.180)	0.030	(0.171)	0.067	(0.251)
<i>Respondent foreign</i>	0.135	(0.342)	0.135	(0.341)	0.139	(0.346)	0.138	(0.345)	0.139	(0.346)	0.128	(0.335)
<i>Partner foreign</i>	0.137	(0.344)	0.136	(0.343)	0.148	(0.356)	0.138	(0.345)	0.138	(0.345)	0.135	(0.342)
<i>Nb of children &lt;5</i>	0.332	(0.633)	0.331	(0.629)	0.356	(0.683)	0.323	(0.628)	0.322	(0.628)	0.328	(0.620)
<i>Nb of children 5-11</i>	0.457	(0.760)	0.457	(0.760)	0.454	(0.765)	0.458	(0.773)	0.450	(0.766)	0.544	(0.841)
<i>Nb of children 12-17</i>	0.365	(0.671)	0.362	(0.670)	0.397	(0.690)	0.366	(0.689)	0.358	(0.678)	0.457	(0.794)
<i>Hh non-labor income</i>	61.437	(43.221)	62.301	(43.462)	49.594	(37.857)	49.688	(41.997)	50.386	(42.327)	42.272	(37.545)
<i>Urban (vs. Rural) residence</i>	0.807	(0.395)	0.802	(0.399)	0.873	(0.333)	0.804	(0.397)	0.798	(0.401)	0.863	(0.344)
<i>Northeast</i>	0.179	(0.384)	0.182	(0.386)	0.140	(0.347)	0.185	(0.388)	0.188	(0.391)	0.148	(0.355)
<i>Midwest</i>	0.266	(0.442)	0.273	(0.446)	0.174	(0.379)	0.259	(0.438)	0.265	(0.441)	0.188	(0.391)
<i>South</i>	0.347	(0.476)	0.328	(0.469)	0.607	(0.489)	0.348	(0.476)	0.327	(0.469)	0.566	(0.496)
<i>N Interracial couples</i>	181		131		50		197		50		147	
<i>% Interracial couples</i>	0.011		0.008		0.049		0.012		0.003		0.116	
<i>N Observations</i>	16,649		15,638		1,011		16,897		15,627		1,270	

Notes: Source: ATUS 2003-2009. LLFP indicates low or limited Labor Force Participation of the respondent (less than 10 hours a week). See Table A3 for a description of all the variables.

**Table 2. OLS regressions of chores for White women with employed husbands**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All Women	Weekday	Weekend	Married Women	Unwed Women	Married Women with LLFP	Married Women with Non-LLFP
<i>Husband Black</i>	-0.330** (0.139)	-0.489*** (0.165)	0.112 (0.246)	-0.380*** (0.146)	-0.108 (0.349)	-0.740** (0.308)	-0.122 (0.172)
<b><i>Other Ind. and Hh. Characteristics</i></b>							
<i>Age wife</i>	0.067*** (0.020)	0.052** (0.026)	0.103*** (0.029)	0.058*** (0.021)	0.144* (0.073)	0.091** (0.044)	0.059** (0.024)
<i>Age wife, squared</i>	-0.049** (0.024)	-0.033 (0.031)	-0.089*** (0.034)	-0.037 (0.025)	-0.176** (0.087)	-0.071 (0.053)	-0.041 (0.028)
<i>Older husband</i>	0.046 (0.049)	0.021 (0.062)	0.100 (0.072)	0.063 (0.051)	-0.071 (0.167)	0.229** (0.102)	0.040 (0.057)
<i>Wife's hourly wage</i>	-0.223 (0.187)	-0.373 (0.239)	0.182 (0.262)	-0.388** (0.190)	0.772 (0.856)	-0.479 (0.367)	-0.263 (0.216)
<i>Husband's hourly wage</i>	-0.001 (0.017)	0.007 (0.021)	-0.021 (0.026)	-0.004 (0.017)	0.038 (0.076)	0.004 (0.037)	-0.027 (0.019)
<i>Wife's education</i>	-0.069*** (0.019)	-0.075*** (0.025)	-0.055** (0.027)	-0.058*** (0.020)	-0.109 (0.084)	-0.024 (0.035)	-0.044* (0.023)
<i>Husband's education</i>	0.000 (0.009)	0.011 (0.012)	-0.029** (0.013)	-0.001 (0.010)	0.000 (0.034)	-0.005 (0.019)	-0.005 (0.011)
<i>Wife disabled</i>	0.052 (0.166)	0.362* (0.209)	-0.908*** (0.185)	0.037 (0.173)	0.385 (0.484)	-0.647*** (0.187)	- -
<i>Wife foreign</i>	0.596*** (0.091)	0.749*** (0.115)	0.266** (0.136)	0.600*** (0.094)	0.483 (0.334)	0.782*** (0.167)	0.307*** (0.099)
<i>Husband foreign</i>	0.384*** (0.088)	0.329*** (0.110)	0.431*** (0.133)	0.385*** (0.091)	0.356 (0.307)	0.389** (0.168)	0.255*** (0.095)
<i>Nb of children &lt;5</i>	0.418*** (0.033)	0.496*** (0.042)	0.216*** (0.046)	0.422*** (0.034)	0.405*** (0.117)	0.337*** (0.063)	0.283*** (0.039)
<i>Nb of children 5-11</i>	0.335*** (0.026)	0.367*** (0.034)	0.267*** (0.036)	0.339*** (0.027)	0.269** (0.116)	0.321*** (0.050)	0.245*** (0.031)
<i>Nb of children 12-17</i>	0.314*** (0.035)	0.356*** (0.045)	0.208*** (0.046)	0.321*** (0.036)	0.265* (0.136)	0.423*** (0.072)	0.241*** (0.038)
<i>Hh non-labor income</i>	-0.001 (0.001)	-0.001* (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.002)	-0.002* (0.001)	-0.001 (0.001)
<i>Urban (vs. Rural) residence</i>	-0.050	-0.079	0.030	-0.057	0.053	-0.067	-0.093

<i>Northeast</i>	(0.054) 0.115*	(0.068) 0.115	(0.077) 0.106	(0.055) 0.136*	(0.222) -0.088	(0.124) 0.129	(0.059) 0.214***
<i>Midwest</i>	(0.068) -0.057	(0.085) -0.062	(0.101) -0.068	(0.071) -0.062	(0.208) -0.069	(0.135) -0.019	(0.081) 0.004
<i>South</i>	(0.061) -0.036	(0.077) -0.015	(0.090) -0.068	(0.064) -0.060	(0.203) 0.179	(0.132) 0.076	(0.071) -0.083
<i>Constant</i>	(0.059) 1.216***	(0.075) 1.822***	(0.086) 0.019	(0.061) 1.728***	(0.225) -2.185*	(0.118) 1.624**	(0.068) 1.133***
	(0.367)	(0.465)	(0.520)	(0.398)	(1.252)	(0.821)	(0.431)
<i>N Interracial couples</i>	131	65	66	101	30	30	71
<i>R-Squared</i>	0.108	0.133	0.061	0.107	0.145	0.146	0.084
<i>N Observations</i>	15,638	7,745	7,893	14,772	866	4,106	10,666

Notes: Standard errors in parentheses. \*Significant at the 90% level \*\*Significant at the 95% level \*\*\*Significant at the 99% level. Age range: women 21-65. Source: ATUS 2003-2009. Chores is measured in hours per day, see Table A2 for a description of the activities included in Chores.

**Table 3. OLS regressions of chores for Black women with employed husbands**

	(1)	(2)	(3)	(4)	(5)	(6)
	All Women	Weekday	Weekend	Married Women	Women with LLFP	Women with Non-LLFP
<i>Husband White</i>	0.411 (0.524)	1.231* (0.701)	-1.459*** (0.256)	0.410 (0.513)	2.196* (1.129)	-0.156 (0.342)
<b><u>Other Ind. and Hh. Characteristics</u></b>						
<i>Age wife</i>	0.058 (0.075)	0.064 (0.089)	0.060 (0.105)	0.012 (0.089)	-0.058 (0.167)	0.115* (0.067)
<i>Age wife, squared</i>	-0.049 (0.084)	-0.053 (0.103)	-0.055 (0.121)	0.003 (0.099)	0.105 (0.193)	-0.126 (0.077)
<i>Older husband</i>	0.270 (0.170)	0.288 (0.212)	0.169 (0.265)	0.093 (0.178)	0.618* (0.349)	0.066 (0.174)
<i>Wife's hourly wage</i>	-0.327 (0.631)	-0.587 (0.754)	-0.169 (1.017)	-0.429 (0.658)	-2.432* (1.431)	0.216 (0.593)
<i>Husband's hourly wage</i>	0.039 (0.085)	0.134 (0.093)	-0.174 (0.156)	0.039 (0.089)	0.240 (0.206)	-0.020 (0.089)
<i>Wife's education</i>	-0.034 (0.080)	-0.012 (0.097)	0.005 (0.114)	-0.040 (0.081)	0.222 (0.187)	-0.076 (0.067)
<i>Husband's education</i>	-0.033 (0.041)	-0.053 (0.051)	0.020 (0.063)	-0.038 (0.043)	-0.234** (0.116)	0.023 (0.039)
<i>Wife disabled</i>	0.317 (0.368)	0.405 (0.413)	-0.274 (0.809)	0.009 (0.350)	-0.346 (0.517)	0.000 (0.000)
<i>Wife foreign</i>	-0.114 (0.294)	-0.166 (0.364)	0.025 (0.444)	-0.164 (0.316)	0.246 (0.615)	0.042 (0.356)
<i>Husband foreign</i>	0.191 (0.286)	0.258 (0.367)	0.035 (0.399)	0.254 (0.308)	-0.008 (0.608)	0.044 (0.335)
<i>Nb of children &lt;5</i>	0.280** (0.134)	0.334* (0.171)	0.244 (0.160)	0.286* (0.154)	0.404 (0.265)	0.152 (0.120)
<i>Nb of children 5-11</i>	0.281** (0.109)	0.335** (0.148)	0.086 (0.125)	0.327*** (0.117)	0.364 (0.226)	0.275*** (0.105)
<i>Nb of children 12-17</i>	-0.031 (0.111)	-0.233* (0.124)	0.156 (0.205)	-0.041 (0.116)	0.643** (0.307)	-0.095 (0.104)
<i>Hh non-labor income</i>	-0.002 (0.002)	-0.005* (0.003)	0.004 (0.003)	-0.001 (0.002)	0.013** (0.006)	-0.005** (0.002)
<i>Urban (vs. Rural) residence</i>	0.166 (0.284)	0.022 (0.385)	0.404 (0.283)	0.221 (0.298)	-0.249 (0.644)	0.348* (0.193)
<i>Northeast</i>	-0.040 (0.399)	-0.222 (0.526)	-0.614 (0.455)	-0.017 (0.428)	-0.967 (0.733)	0.427 (0.330)
<i>Midwest</i>	-0.432 (0.391)	-0.514 (0.494)	-0.945** (0.455)	-0.431 (0.426)	-0.907 (0.726)	-0.241 (0.286)
<i>South</i>	-0.524 (0.352)	-0.688 (0.445)	-0.681 (0.427)	-0.594 (0.391)	-1.191* (0.624)	-0.100 (0.256)
<i>Constant</i>	1.690 (1.723)	2.300 (2.092)	0.449 (1.698)	3.123 (2.215)	8.415** (3.250)	-1.263 (1.254)
<i>N Interracial couples</i>	50	25	25	45	9	40
<i>R-Squared</i>	0.073	0.106	0.073	0.081	0.244	0.097
<i>N Observations</i>	1,011	501	560	923	222	788

Notes: see Table 2.

**Table 4. Estimates with selection equations for White women**

	(1)	(2)	(3)
	Husband black	Husband employed	Chores
<i>Husband Black</i>	-	-	-0.405***
	-	-	(0.137)
<b><u>Other Ind. and Hh. Characteristics</u></b>			
<i>Age wife</i>	-0.002	0.071***	0.088***
	(0.029)	(0.013)	(0.024)
<i>Age wife, squared</i>	0.000	-0.102***	-0.082***
	(0.034)	(0.015)	(0.029)
<i>Older husband</i>	0.015	-0.202***	-0.033
	(0.069)	(0.030)	(0.055)
<i>Wife's hourly wage</i>	-0.956***	0.118	-0.069
	(0.309)	(0.125)	(0.189)
<i>Husband's hourly wage</i>	0.027	-	0.028**
	(0.026)	-	(0.014)
<i>Wife's education</i>	0.095***	-0.011	-0.081***
	(0.031)	(0.012)	(0.019)
<i>Husband's education</i>	-0.021	0.014**	-0.002
	(0.013)	(0.006)	(0.009)
<i>Wife disabled</i>	0.324**	-0.563***	-0.161
	(0.154)	(0.071)	(0.191)
<i>Wife foreign</i>	-0.129	-0.074	0.592***
	(0.182)	(0.065)	(0.086)
<i>Husband foreign</i>	-0.148	0.265***	0.431***
	(0.188)	(0.067)	(0.091)
<i>Nb of children &lt;5</i>	0.004	-0.013	0.387***
	(0.053)	(0.024)	(0.033)
<i>Nb of children 5-11</i>	-0.013	-0.023	0.316***
	(0.038)	(0.018)	(0.026)
<i>Nb of children 12-17</i>	-0.023	0.046**	0.305***
	(0.052)	(0.022)	(0.033)
<i>Hh non-labor income</i>	-0.002***	0.008***	0.001
	(0.001)	(0.000)	(0.001)
<i>Urban (vs. Rural) residence</i>	-	-0.083**	-0.105**
	-	(0.034)	(0.052)
<i>Northeast</i>	-0.117	0.126***	0.161**
	(0.108)	(0.044)	(0.067)
<i>Midwest</i>	-0.200**	0.176***	-0.025
	(0.095)	(0.042)	(0.063)
<i>South</i>	-0.125	-0.039	-0.006
	(0.212)	(0.041)	(0.057)
<b><u>Residence Characteristics</u></b>			
<i>Never misceg. Law</i>	-0.027	-	-
	(0.202)	-	-
<i>Had to follow Loving</i>	-0.042	-	-
	(0.188)	-	-
<i>Availability ratio</i>	-0.009**	-	-
	(0.004)	-	-
<i>State unemployment rate</i>	-	-0.037***	-
	-	(0.008)	-
<i>State minimum wage</i>	-	0.005	-
	-	(0.007)	-
<i>Inverse Mills Ratio</i>	-	-	0.950*
	-	-	(0.499)
<i>Constant</i>	-0.189	-0.387*	0.371
	(0.535)	(0.232)	(0.521)
<i>N Interracial couples</i>	-	-	160
<i>R-Squared</i>	-	-	0.104
<i>N Observations</i>	-	17,533	-

Notes: see Table 2.

**Table 5. OLS regressions of total housework, White and Black women**

	(1)	(2)	(3)	(4)	(5)
	White Women	White Women Weekday	Married White Women	Married White Women with LLFP	Black Women (Weekday)
<i>Husband Black</i>	-0.549** (0.214)	-0.848*** (0.241)	-0.697*** (0.228)	-1.782*** (0.395)	- -
<i>Husband White</i>	- -	- -	- -	- -	1.345** (0.675)
<b><i>Other Ind. and Hh. Characteristics</i></b>					
<i>Age wife</i>	0.082*** (0.027)	0.083** (0.035)	0.071** (0.029)	0.095* (0.055)	0.027 (0.112)
<i>Age wife, squared</i>	-0.051 (0.032)	-0.051 (0.042)	-0.037 (0.034)	-0.054 (0.066)	0.005 (0.131)
<i>Older husband</i>	0.017 (0.066)	-0.056 (0.084)	0.030 (0.069)	0.240* (0.126)	0.353 (0.254)
<i>Wife's hourly wage</i>	-0.577** (0.243)	-0.868*** (0.313)	-0.721*** (0.247)	-0.645 (0.440)	-0.645 (1.057)
<i>Husband's hourly wage</i>	0.016 (0.023)	0.021 (0.030)	0.012 (0.024)	-0.008 (0.051)	0.034 (0.135)
<i>Wife's education</i>	-0.029 (0.025)	-0.035 (0.032)	-0.023 (0.025)	0.014 (0.042)	-0.007 (0.146)
<i>Husband's education</i>	-0.001 (0.012)	0.014 (0.016)	0.001 (0.013)	-0.002 (0.024)	0.003 (0.077)
<i>Wife disabled</i>	0.156 (0.255)	0.601* (0.311)	0.174 (0.267)	-1.009*** (0.283)	0.547 (0.514)
<i>Wife foreign</i>	0.437*** (0.126)	0.609*** (0.160)	0.420*** (0.130)	0.579*** (0.221)	0.501 (0.631)
<i>Husband foreign</i>	0.196 (0.122)	0.110 (0.155)	0.239* (0.126)	0.165 (0.228)	-0.458 (0.572)
<i>Nb of children &lt;5</i>	0.407*** (0.042)	0.543*** (0.054)	0.400*** (0.044)	0.205*** (0.079)	0.413* (0.221)
<i>Nb of children 5-11</i>	0.308*** (0.033)	0.379*** (0.042)	0.322*** (0.034)	0.237*** (0.061)	0.222 (0.167)
<i>Nb of children 12-17</i>	0.344*** (0.044)	0.393*** (0.058)	0.352*** (0.046)	0.406*** (0.087)	-0.228 (0.159)
<i>Hh non-labor income</i>	0.001 (0.001)	0.000 (0.001)	0.001 (0.001)	0.000 (0.001)	-0.005 (0.003)
<i>Urban (vs. Rural) residence</i>	-0.024 (0.074)	-0.033 (0.094)	-0.050 (0.076)	-0.106 (0.167)	-0.298 (0.688)
<i>Northeast</i>	0.103 (0.088)	0.092 (0.112)	0.115 (0.092)	0.091 (0.176)	-0.223 (0.533)
<i>Midwest</i>	-0.173** (0.080)	-0.222** (0.101)	-0.168** (0.083)	-0.045 (0.166)	-0.211 (0.498)
<i>South</i>	-0.038 (0.078)	-0.025 (0.100)	-0.063 (0.081)	0.198 (0.147)	-0.645 (0.443)
<i>Constant</i>	2.376*** (0.499)	2.933*** (0.630)	2.959*** (0.535)	3.102*** (0.995)	3.664 (2.230)
<i>N Interracial couples</i>	131	65	101	30	25
<i>R-Squared</i>	0.073	0.071	0.073	0.075	0.066
<i>N Observations</i>	15,638	7,745	14,772	4,106	501

Notes: Standard errors in parentheses. \*Significant at the 90% level \*\*Significant at the 95% level \*\*\*Significant at the 99% level. Age range: women 21-65. Source: ATUS 2003-2009. *Total Housework* is measured in hours per day and is defined following Burda, Hamermesh and Weil (2008).

**Table 6. OLS regressions of total housework for White men**

	(1)	(2)	(3)	(4)	(5)	(6)
	All Men	Weekday	Weekend	Married Men	Men with LLFP	Married men with LLFP
<i>Wife Black</i>	-0.587*** (0.196)	-0.589*** (0.210)	-0.561 (0.501)	-0.560** (0.220)	-0.094 (1.226)	0.520 (1.428)
<b><i>Other Ind. and Hh. Characteristics</i></b>						
<i>Age husband</i>	0.056** (0.024)	0.044 (0.030)	0.092** (0.036)	0.051* (0.026)	0.078 (0.096)	0.094 (0.104)
<i>Age husband, squared</i>	-0.055** (0.027)	-0.040 (0.033)	-0.097** (0.040)	-0.049** (0.029)	-0.087 (0.099)	-0.106 (0.109)
<i>Older husband</i>	0.038 (0.059)	0.046 (0.073)	0.018 (0.095)	0.041 (0.061)	0.016 (0.243)	-0.017 (0.248)
<i>Husband's hourly wage</i>	-0.377** (0.181)	-0.512** (0.222)	-0.033 (0.302)	-0.458** (0.192)	-0.658 (0.835)	-1.378 (0.920)
<i>Wife's hourly wage</i>	0.053* (0.030)	0.022 (0.038)	0.121*** (0.045)	0.043 (0.031)	-0.018 (0.125)	-0.026 (0.128)
<i>Husband's education</i>	0.041** (0.017)	0.031 (0.021)	0.066** (0.026)	0.043** (0.018)	0.054 (0.069)	0.073 (0.072)
<i>Wife's education</i>	0.000 (0.011)	0.012 (0.014)	-0.030* (0.017)	-0.001 (0.012)	0.114** (0.054)	0.122** (0.055)
<i>Wife in Labor Force</i>	0.060 (0.089)	0.123 (0.111)	0.069 (0.136)	0.084 (0.091)	0.293 (0.346)	0.315 (0.362)
<i>Husband disabled</i>	0.033 (0.131)	0.322** (0.161)	-0.734*** (0.193)	-0.009 (0.131)	-0.708*** (0.238)	-0.830*** (0.239)
<i>Husband foreign</i>	-0.106 (0.093)	-0.110 (0.115)	-0.055 (0.157)	-0.125 (0.094)	-0.141 (0.330)	-0.262 (0.338)
<i>Wife foreign</i>	-0.035 (0.094)	-0.081 (0.116)	0.053 (0.158)	-0.031 (0.095)	-0.267 (0.339)	-0.201 (0.347)
<i>Nb of children &lt;5</i>	0.011 (0.045)	0.017 (0.055)	0.002 (0.063)	0.007 (0.048)	-0.258 (0.192)	-0.356* (0.208)
<i>Nb of children 5-11</i>	0.013 (0.028)	0.012 (0.035)	0.018 (0.045)	0.012 (0.029)	0.049 (0.125)	-0.051 (0.135)
<i>Nb of children 12-17</i>	0.029 (0.043)	0.049 (0.053)	-0.022 (0.059)	0.031 (0.045)	0.121 (0.150)	0.142 (0.157)
<i>Hh non-labor income</i>	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	-0.001 (0.004)	0.000 (0.004)
<i>Urban (vs. Rural) residence</i>	0.128** (0.060)	0.153** (0.073)	0.050 (0.102)	0.156** (0.062)	0.190 (0.228)	0.245 (0.243)
<i>Northeast</i>	-0.150** (0.072)	-0.270*** (0.088)	0.168 (0.119)	-0.134* (0.075)	-0.477 (0.308)	-0.479 (0.323)
<i>Midwest</i>	-0.031 (0.071)	-0.067 (0.089)	0.062 (0.107)	-0.023 (0.074)	-0.264 (0.325)	-0.322 (0.352)
<i>South</i>	-0.252*** (0.067)	-0.304*** (0.083)	-0.126 (0.103)	-0.237*** (0.070)	-0.443 (0.320)	-0.567 (0.349)
<i>Constant</i>	0.834* (0.477)	1.433** (0.592)	-0.170 (0.705)	1.175** (0.562)	0.892 (2.460)	2.471 (2.971)
<i>N Interracial couples</i>	50	31	19	41	8	7
<i>R-Squared</i>	0.067	0.013	0.02	0.068	0.07	0.083
<i>N Observations</i>	15,627	7,852	7,775	14,733	1,109	1,012

Notes: see Table 5.



**Table 7. OLS regressions of total housework for Black men**

	(1)	(2)	(3)	(4)	(5)	(6)
	All Men	Weekday	Weekend	Married Men	Men with LLFP	Married men with LLFP
<i>Wife White</i>	-0.058 (0.215)	-0.151 (0.267)	0.272 (0.350)	-0.060 (0.241)	1.342** (0.564)	1.701** (0.771)
<b><i>Other Ind. and Hh. Characteristics</i></b>						
<i>Age Husband</i>	0.023 (0.067)	-0.044 (0.087)	0.171* (0.095)	0.076 (0.072)	0.198 (0.144)	0.103 (0.199)
<i>Age husband, squared</i>	-0.004 (0.073)	0.075 (0.094)	-0.170 (0.107)	-0.058 (0.079)	-0.133 (0.155)	-0.042 (0.207)
<i>Older husband</i>	0.044 (0.186)	-0.005 (0.232)	0.091 (0.282)	0.165 (0.211)	-0.043 (0.439)	-0.087 (0.534)
<i>Husband's hourly wage</i>	-0.763 (0.712)	-0.493 (0.893)	-1.465 (0.914)	-0.772 (0.843)	-1.504 (1.324)	0.204 (2.106)
<i>Wife's hourly wage</i>	0.128 (0.083)	0.080 (0.090)	0.198 (0.169)	0.094 (0.087)	0.228 (0.344)	0.023 (0.363)
<i>Husband's education</i>	0.042 (0.064)	-0.023 (0.078)	0.189** (0.081)	0.066 (0.076)	0.056 (0.122)	-0.039 (0.164)
<i>Wife's education</i>	0.018 (0.029)	0.028 (0.037)	-0.011 (0.046)	-0.002 (0.030)	0.134 (0.091)	0.084 (0.092)
<i>Wife in Labor Force</i>	-0.172 (0.265)	-0.196 (0.319)	-0.034 (0.445)	-0.077 (0.263)	-0.043 (0.888)	-0.037 (0.977)
<i>Husband disabled</i>	-0.127 (0.258)	0.095 (0.324)	-0.667* (0.369)	-0.347 (0.283)	-0.800 (0.484)	-0.784 (0.573)
<i>Husband foreign</i>	0.329 (0.226)	0.619** (0.286)	-0.243 (0.345)	0.230 (0.234)	1.631** (0.715)	2.004*** (0.751)
<i>Wife foreign</i>	-0.289 (0.212)	-0.355 (0.247)	-0.049 (0.385)	-0.279 (0.222)	-1.059* (0.586)	-1.281** (0.618)
<i>Nb of children &lt;5</i>	0.220* (0.132)	0.214 (0.174)	0.302* (0.177)	0.229 (0.151)	0.725** (0.292)	0.544* (0.281)
<i>Nb of children 5-11</i>	0.166* (0.093)	0.289** (0.130)	-0.005 (0.107)	0.195** (0.098)	0.400** (0.189)	0.469* (0.274)
<i>Nb of children 12-17</i>	0.173* (0.096)	0.158 (0.118)	0.148 (0.143)	0.244** (0.107)	0.017 (0.177)	0.257 (0.241)
<i>Hh non-labor income</i>	-0.001 (0.002)	-0.003 (0.002)	0.002 (0.003)	-0.001 (0.002)	-0.003 (0.005)	-0.002 (0.007)
<i>Urban (vs. Rural) residence</i>	-0.061 (0.195)	0.010 (0.246)	-0.162 (0.311)	-0.092 (0.210)	0.197 (0.419)	0.203 (0.490)
<i>Northeast</i>	-0.694** (0.284)	-0.960*** (0.346)	-0.293 (0.469)	-0.697** (0.318)	-1.165 (0.893)	-0.988 (0.952)
<i>Midwest</i>	-0.419 (0.303)	-0.319 (0.387)	-0.603 (0.447)	-0.550* (0.321)	-1.803* (0.954)	-1.251 (1.075)
<i>South</i>	-0.630** (0.277)	-0.495 (0.346)	-0.929** (0.423)	-0.630** (0.310)	-1.291 (0.939)	-1.002 (1.023)
<i>Constant</i>	2.252 (1.716)	3.532 (2.322)	0.305 (2.007)	1.032 (1.674)	-1.221 (2.920)	-2.171 (3.540)
<i>N Interracial couples</i>	147	73	74	112	16	10
<i>R-Squared</i>	0.034	0.042	0.058	0.042	0.23	0.23
<i>N Observations</i>	1,270	598	672	1,104	205	160

Notes: See Table 5.

## Appendix

**Table A1. Heckman's Model for Wage**

	Men		Women	
	Hourly Wage	Employment	Hourly Wage	Employment
Married	0.092*** (0.005)	0.144*** (0.014)	0.049*** (0.006)	-0.394*** (0.010)
Never married	-0.050*** (0.006)	-0.020 (0.020)	-0.027*** (0.005)	-0.016 (0.015)
No High-School Degree	-0.203*** (0.005)	-0.129*** (0.015)	-0.224*** (0.007)	-0.418*** (0.009)
Some College	0.105*** (0.004)	0.097*** (0.015)	0.147*** (0.004)	0.213*** (0.010)
College	0.404*** (0.004)	0.221*** (0.015)	0.477*** (0.005)	0.193*** (0.009)
More than College (doctorate)	0.566*** (0.006)	0.243*** (0.021)	0.682*** (0.006)	0.380*** (0.015)
Age	0.045*** (0.002)	0.140*** (0.003)	0.043*** (0.001)	0.116*** (0.003)
Age Squared	-0.044*** (0.002)	-0.189*** (0.003)	-0.043*** (0.002)	-0.158*** (0.004)
Black	-0.154*** (0.006)	-0.274*** (0.013)	-0.042*** (0.004)	0.041*** (0.010)
Hispanic	-0.163*** (0.005)	0.154*** (0.014)	-0.076*** (0.004)	-0.057*** (0.010)
Northeast	0.072*** (0.005)	0.007 (0.014)	0.081*** (0.004)	0.022** (0.010)
Midwest	0.011*** (0.004)	0.028** (0.014)	0.016*** (0.005)	0.126*** (0.009)
West	0.083*** (0.005)	-0.071*** (0.014)	0.103*** (0.004)	-0.022** (0.010)
Non-Urban area	0.116*** (0.007)	0.027 (0.027)	0.129*** (0.007)	-0.031* (0.017)
Own kids	-	0.111*** (0.016)	-	-0.106*** (0.010)
Number of children <5	-	-0.059*** (0.010)	-	-0.251*** (0.007)
Number of children <18	-	-0.021*** (0.007)	-	-0.100*** (0.005)
Student	-	-1.327*** (0.023)	-	-1.204*** (0.022)
Unemployment rate	-	-0.051*** (0.004)	-	-0.042*** (0.004)
No housing tenure	-	-0.047* (0.024)	-	-0.053*** (0.016)
Farm/Business	-	0.295*** (0.018)	-	0.096*** (0.011)
Constant	1.648*** (0.032)	-1.032*** (0.079)	1.422*** (0.029)	-0.611*** (0.067)
Inverse Mills Ratio	-0.245*** (0.016)	-	-0.095*** (0.012)	-
Censored observations	17430		41690	
Uncensored observations	98883		96480	
Observations	116,313		138,170	

Notes: Bootstrapped standard errors in parentheses \*Significant at the 90% level \*\*Significant at the 95% level \*\*\*Significant at the 99% level. Sample consists of married or cohabiting individuals aged 21-65 from the ATUS 2003-2009

**Table A2 - Definition of Chores**

	Schooling		Earnings
<b>Travel related to house work</b>	<b>-0.086</b>	<b>Food and drink preparation</b>	<b>-0.0352</b>
Travel related to civic obligations & participation	-0.0752	<b>Interior cleaning</b>	<b>-0.0316</b>
<b>Food and drink preparation</b>	<b>-0.0719</b>	<b>Travel to/from the grocery store</b>	<b>-0.0315</b>
<b>Interior cleaning</b>	<b>-0.0716</b>	<b>Grocery shopping</b>	<b>-0.0312</b>
Using social services	-0.0703	Household & personal e-mail and messages	-0.0188
<b>Travel to/from the grocery store</b>	<b>-0.0607</b>	<b>Travel related to house work</b>	<b>-0.0164</b>
Waiting associated w/civic oblig. & participation	-0.0454	Travel to/from other store	-0.0134
Vehicle repair and maintenance (by self)	-0.0448	<b>Laundry</b>	<b>-0.0133</b>
<b>Laundry</b>	<b>-0.0397</b>	Travel related to using home main./repair/décor. svcs	-0.013
<b>Grocery shopping</b>	<b>-0.0287</b>	Picking up/dropping off household adult	-0.0122
Helping household adults	-0.0283	<b>Kitchen and food clean-up</b>	<b>-0.0117</b>
Socializing and communicating	-0.0237	Waiting associated with caring for household adults	-0.0112
Providing medical care to household adult	-0.0221	Physical care for household adults	-0.0108
<b>Kitchen and food clean-up</b>	<b>-0.0205</b>	Using home maint/repair/décor/construction svcs	-0.01

*Notes:* Sample consists of married or cohabiting women aged 21-65 who responded to the ATUS in 2003-2009. *Schooling* is measured in years of education, *Earnings* is measured in hourly-wage. Activities included from group 2 (*Household Activities*) and group 7 (*Consumer Purchases*) in the ATUS, and their corresponding travelling activities. Selected activities in **bold**; activities with a correlation lower than -0.01 are not included in the table.

**Table A3. Variables and Definitions**

<b>Variables</b>	<b>Definitions</b>
Chores	Hours per day respondent devoted to <i>Household Chores</i>
Total Housework	Hours per day respondent devoted to <i>Total Housework</i>
Partner Black	Dummy variable equal to 1 if the respondent's partner classified as "Black only" or "White-Black"
Partner White	Dummy variable equal to 1 if the partner classified as "White only"
Age Respondent	Respondent's age in years
Older husband	Dummy variable equal to 1 if the male partner is 5 or more years older than the female partner
Respondent's hourly wage	Log of the respondent's hourly wage, predicted
Partner's hourly wage	Log of the respondent's partner hourly wage, predicted
Respondent's education	Years of educational attainment of the respondent
Partner's education	Years of educational attainment of the respondent's partner
LLFP	Low or limited Labor Force Participation of the respondent (less than 10 hours a week)
Partner in Labor Force	Dummy variable equal to 1 if the respondent's partner works at least 10 hours per week
Respondent disabled	Dummy variable equal to 1 if the respondent is disabled
Respondent foreign	Dummy variable equal to 1 if the respondent was born outside of the US
Partner foreign	Dummy variable equal to 1 if the respondent's partner was born outside of the US
Nb of children <5	Number of children younger than 5 in the household
Nb of children 5-11	Number of children between 5 and 11 years old in the household
Nb of children 12-17	Number of children between 12 and 17 years old in the household
Hh non-labor income	Yearly Non-Labor income (divided by 1,000)
Urban (vs. Rural) residence	Dummy variable equal to 1 if the couple lives in an urban area
Northeast	Dummy variable equal to 1 if the couple lives in the Northeast
Midwest	Dummy variable equal to 1 if the couple lives in the Midwest
South	Dummy variable equal to 1 if the couple lives in the South