Household Production and Racial Intermarriage: Are There Compensating Differentials?

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Abstract

We investigate whether in the US 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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I. 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 light-skinned Blacks have lower marriage rates than dark-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. 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.[1] 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

[1] Reverse causation is an alternative explanation: marriage to a husband from a higher-status group may enhance an individual's earnings or employment probability.

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.

Our conceptual framework is based on Becker's (1965) theory of allocation of time and what we call Becker's (1973) hedonic market model of marriage, the second Demand and Supply model in Becker (1973). 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 or potentially participate or participated. Consequently, members of groups with higher status will be compensated more when in couple with members of lower status groups than when 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 in couple with members of their own group.

Previous research has tested for the existence of such compensating differentials comparing the labor supply of women married to husbands of different ethnicity or race: women married to men from lower status ethnicities or races are expected to obtain positive compensating differentials relative to counterparts married to men from their own group. 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 it was found that women from a higher-status group, Ashkenazi

Jews in Israel (Grossbard-Shechtman and Neuman 1988) and Caucasians in Hawaii (Grossbard-Shechtman and Fu 2002), were less likely to participate in the labor force if married to men from a lower-status group than if married to men from their own group. 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 all-Hawaiian marriages.

In this paper we offer a more direct test of compensating differentials 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 in couple with partners from their own group, and whether Blacks—a group that has low status among many Whites in the U.S. –spend more time on household chores when in couple with Whites than when in all-Black couples.

Our empirical analysis builds on a growing literature on allocation of time to household production that includes Bittman et al. (2003), Kalenkoski et al. (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 will use the terms 'husband', 'wife', and 'spouse'). 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 of native/immigrant intermarriage and 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 (0.6 fewer hours per day) than

their counterparts in couple with White partners. 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 married to Whites, but estimated effects are smaller 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 counterparts in couple with Black partners, and that intermarried Black men with low or no labor force participation do 1.7 hours of housework more than their counterparts in couple with Black women. Our analyses therefore suggest that Blacks pay a price for being in couple with Whites rather than with Blacks: 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, Whites in couple with Blacks obtain compensating differentials in the form of less own work in chores, and more chore work supplied by their White 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.

II. 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 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 includes only 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* of these men's share of the gain from marriage to women of type *i*. Let us call it e_{ii}, the first *i* denoting the type of woman and the second *i* the type of man. A man M_i follows the decision rule

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

Keeping constant the shares e_{ij}, e_{ik}, …etc. that men M_i would possibly obtain if entering marriages to substitutable women of types *j*, *k*,…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 $e_{ii} \leq$ critical value ➔ 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_iF_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_iF_i market at the intersection of Demand and Supply. In this marriage market in equilibrium prices are thus shares of

the gain from marriage. Simultaneously, other shares/prices e_{lm} are established in L x N markets for marriage $M_l F_n$, where $l=i,j,k...L$ are all the types of women and $n= I, j, k...N$ are all the types of men. In terms introduced by Sherwin Rosen (1974), after the publication of Becker's (1973) Theory of Marriage, this second Demand and Supply 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 hedonic marriage market model based on Becker's hedonic marriage market model that is more compatible with comparative statics analyses of labor markets.

The quantity in Becker's marriage markets is the number of men and women. Instead, 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 interested in 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 **W**ork **I**n marital **H**ousehold production '*WIH*' and *y* the pay for such work (per given time unit).[2] 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 $y_{ii} \geq$ critical value ➔ F_i supplies her work in the market for WIH_{ii} in which women F_i and men M_i marry each other.

[2] 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'.

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).[3]

A man M_i follows this decision rule:

(4) If $y_{ii} \leq$ critical value ➔ 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

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

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 makes it easy to identify another group of variables likely to affect equilibrium "prices": characteristics affecting the (dis)utility of *WIH* work.

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 workers and therefore lower wages. 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.

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 discrimination against Blacks), it follows that White women's aggregate supply of *WIH* to Black men in the market for WIH_{WB} (WIH leading to marriages between White women and Black men) will be smaller than their aggregate supply of *WIH* to White men in the market for

WIH_{WW} (where the first subscript stands for the woman's group). 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 their partners or spouses are also White. This holds even if they personally don't discriminate and if they have no intention to divorce and threaten their husbands with their relatively high marriage market power.

We don't have data on *y*, intra-household transfers interpreted as payments for work in *WIH*. However, we can assume that total unobserved intra-household transfers per given period (day, week, or month) are a function of income, number of children, and other relevant variables and keep those 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 White women who are married to White men.

We do not have data on *WIH* either as existing time use surveys don't 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 earnings from chores *ty* are constant then $y_{WW} > y_{BW}$ implies that $t_{WW} < t_{BW}$, meaning that:

1/ White women in couple with White men will spend more time performing chores *t* than comparable women married to Black men.

Black women and intermarriage. If White men prefer to marry White women, possibly the result of discrimination against Blacks, it is expected that $y_{BB} > y_{BW}$. With earnings from chores *ty* constant this implies that $t_{BB} < t_{BW}$, meaning that:

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

The case of men. When men perform *WIH* they may also obtain an intra-household transfer that varies with 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 counterparts in all-White marriages, i.e. $y'_{WW} < y'_{BW}$, where y' is a compensation that men receive from their wives. At constant earnings *ty* this implies that $t_{WW} > t_{BW}$. In other words,

3/ Intermarried White men will work less at chores than men in all-White marriages.

As for Black men in couple with White women the existence of anti-Black discrimination in marriage markets (or White own-kind preferences exceeding those of Blacks) leads us to predict $y'_{BB} > y'_{WB}$. With earnings from chores *ty* constant this implies that $t_{BB} < t_{WB}$, meaning that:

4/ Black men married to White women will work more at chores than Black men in all-Black marriages.

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 to be the case

a/ on weekdays than on weekends. On weekends, when both members of a couple are more likely to engage in household production at the same time, the same household production activities may appear as less of a chore. Also, activities left for the weekend may be more enjoyable (Jenkins and Osberg 2005; Connelly and Kimmel 2009).

b/ when respondents are not employed in the labor force or they have very low working hours. Division of labor in the couple is likely to involve more chore-type activities on the part of a spouse not employed or working few hours in the labor force than on the part of a fully-employed spouse.

c/ in married couples than in unmarried couples. Married couples are more likely to establish implicit contracts involving the exchange of *WIH* for intra-household transfers of income or goods.

d/ when spouses are fully employed and more likely to compensate respondents for their work in *WIH*.

III. Data and Methods

We use the American Time Use Survey (ATUS)--the first federally administered, continuous survey on time use in the U.S.A.--for the years 2003-2009. 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 women between the ages of 21 and 65 who have time diaries that add up to a complete day (1440 minutes). Additionally, given that according to our theoretical framework we are more likely to find evidence of Compensating Differentials for respondents more likely to obtain intra-household transfers from their spouses, we restrict our analysis of women's time use to women whose partners participate in the labor market. That way, we eliminate cases of women with unemployed husbands who are less likely to compensate women for their *WIH*. However, we don't impose a symmetrical restriction on the male sample: women's employment is not so likely to affect the amount of *WIH* that men perform and whether they are compensated for it by their wives.

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): substituting market goods and services for one's own time is possible. 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. More precisely we use elasticities with respect to own years of schooling (a proxy for women's permanent income) and own actual earnings and require that they be below -0.01. These activities include *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), Hersch and Stratton (2002), and by Sevilla-Sanz, Gimenez-Nadal and Fernandez (2010). We use the term '*chores*' to refer to these activities.

Given that the time devoted to household production by men in the U.S.A has been shown to be very limited (Aguiar and Hurst 2007) for men we use a broader and widely used definition of chores defined as the total time devoted to household production activities excluding childcare.[4] We follow Aguiar and Hurst's (2007) definition of 'unpaid work' and include the following activities in this definition of household chores that we call '*total housework*': any time spent on meal preparation and cleanup, doing 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. In both definitions 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).

Black is defined as being "Black only" or "Black-White", according to the CPS classification. 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

[4] 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. Hersch (2008) shows that women spend a disproportionate amount of their total home production time on daily housework.

the case of women, and 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 provides a much larger number of White women in couple (15,638 observations) than Black women in couple (1,011 observations) we first study the association between racial intermarriage and chores performed by White women. For men, we also have considerably more observations for White men (15,627 observations) than for Black men (1,279 observations).

Column (2) describes the data for White women with employed husbands, Column (3) concentrates on Black women with employed husbands, Column (5) describes the data for White men, and Column (6) describes the data 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 (14%). On average, White and Black women in our sample are 41 years old, 25% and 29% have an older husband, women's log hourly predicted wage stands at $2.8, and their partners' actual log hourly wage is $2.6. Columns (5) and (6) show that White and Black men in our sample devote 1.83 and 1.71 hours per day to *Total Housework*, and that slightly less than 1% of White men have a Black wife or partner while the percentage intermarried is much larger for Black men (4%). On average, White and Black men in our sample are 43 years old and 19% and 24%, respectively, are at least five years older than their wives.

Empirical Strategy

We start with regressions of chores performed by women.

Simple regressions. We run OLS regressions of time in household chores as a function of whether the spouse is from a different race and of a number of characteristics of respondents and their spouses as well as characteristics of the household. We estimate the following equation:

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

where *Chores* is the time devoted to household chores by woman "i" in state "j" and year "t", measured in hours per day, and *Spouse Different Race* 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. According to the predictions of the conceptual framework, we expect to find $\delta_1 < 0$ in the case of White respondents in couple with Black spouses and $\delta_1 > 0$ in the case of Black respondents in couple with White spouses.

Vector *X* includes a number of demographic and economic characteristics of wives and husbands (see Appendix Table A3 for a summary of all variable definitions). The demographic characteristics are age of the respondent (and its square); a dummy *Older Husband* that takes value "1" if the husband is at least five years older than the wife, and "0" otherwise; wife's and husband's education; wife foreign-born and husband foreign-born. In addition, vector X includes variables that could help explain allocation of time of individuals in couples, such as a dummy for disability and own predicted wage and spouse's predicted wage.[5] 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 Kalenkoski et al. (2005; 2007), Friedberg and Webb (2006), Bloemen and Stancanelli (2008), Connelly and Kimmel (2009), Bloemen, Pasqua and Stancanelli (2010) and Stancanelli and Stratton (2010). We expect that individuals with higher predicted wages perform fewer chores. Spouse's predicted wage may have a positive effect on chores to the extent that it reflects the spouse's higher willingness to 'pay' for the respondent's chores work due to both an income effect and a substitution effect.[6]

[5] We calculate predicted wages using a large CPS (Current Population Survey) sample and the Heckman (1979) technique. The variables included in the employment and hourly wage equations are presented in Appendix table A1. 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.

[6] 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.

X also includes household non-labor income defined as the total family income of all family members during the last 12 months minus husband and wife's annual earnings. This includes net income from business, farm or rent, pensions, dividends, interest, Social Security payments, and any other non-labor income received by family members who are 15 years of age 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. We set the value of non-labor income at zero when annual earnings are larger than 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) and Aguiar and Hurst (2007), possibly the result of outsourcing of home production given that home production can be replaced by commercial services. Restricting chores to activities with negative income and education elasticities is expected to limit the potential income effect.

We control for 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. We control for observation day (the reference day being Friday), whether the individual lives in an urban area, and region (the reference being the West).

Two variables that are omitted from *X* on purpose are relationship status (married or not) and respondent's labor force participation. These may be endogeneous 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. And in line with the theory section, we estimate separate equations for weekdays and weekends and for married and unmarried couples. We also distinguish between a sample in which the respondent has no or low labor force participation (working less than 10 hours a week) or works 10 or more hours a week (LLFP in the tables).

We test for robustness of our estimates for women by reestimating our models using 'total housework' instead of 'chores'.

Three-equation models. Out of concern for the non-randomness of matching into interracial couples and to separate the 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). 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, and we have estimated this model with all White women (including those women whose partners are not employed). The two equations with a dichotomous dependent variable are:

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

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

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 λ) indicating whether the husband is employed and the couple interracial. 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:

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

To identify this system of equations we include variables that are unique to each equation and therefore serve as instruments. The variables that help 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" (age being defined in 5-year age groups). Following Meng and Gregory (2005) we use men and women in the same age groups. We expect that the more White men are available, the less it is likely that a White woman will be married to a Black spouse.

Equation 7 also includes 'Loving' dummies to control for whether the state of residence of the reference woman 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. Supreme Court decision 'Loving v. Virginia' (388 U.S. 1). Fryer (2007) 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. 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. 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.

IV. Results

Table 2 shows the results of estimating equation 6 indicating the time devoted to Chores by White women. The reference category is a childless White woman living in the West and observed on Friday. It can be seen from Table 2, Column (1), that relative to White women in couple with White men, White women in couple with Black men devoted about 0.33 fewer hours per day to *Chores*, which indicates that $\delta_1 < 0$ as predicted by the theoretical framework. We interpret this finding as evidence of the existence of a Compensating Differential by race. Additionally, as predicted we also obtain that such Compensating Differential (a) operates during weekdays more than on weekends (the coefficient of 'Black husband' is insignificant on weekends, cols. (2) and (3)), (b) holds for married women only (cols. (4) and (5); we predicted a stronger effect for married couples than for unmarried couples), and (c) is stronger for women with

limited labor force participation (LLFP) than for fully employed women (cols. (6) and (7)).

More specifically, compared to White women in couple with White men White women in couple with Black men devote a half hour less of chores per weekday and 0.4 of an hour less per day if married. The largest compensating differential applies to married women with limited labor force participation: 0.7 of an hour less per day. Table 2 reveals that in absolute value the presence of a Black partner matters as much as the presence of a child under age 5 when it comes to White women's allocation of time to chores.

Table 3 shows the results of estimating equation 6 on the time devoted to Chores by Black women. Here the theory led to a prediction of $\delta_1 > 0$. Columns (2) and (5) in Table 2 show evidence of Compensating Differentials by race, as Black women in couple with White men devote 1.2 more hours to chores per weekday than Black women in couple with Black men. This is interesting, because 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). As for Black women with no or limited labor force participation, they devote 2.2 more hours of chores per day if in couple with White men than if in couple with Black men. However, for the analysis of Black women we must consider that there are few observations and very few interracial couples, which helps explain why we obtain results that are statistically significant only at the 90% level and why the positive 0.4 coefficient of 'husband White' for all Black women in our sample is not statistically significant even though it is slightly larger than the corresponding coefficient for White women. A more in-depth analysis with a larger dataset (e.g., PSID, CPS) is needed to support these results.

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 an interracial marriage 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) are negative and 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 the Mill's ratio in order to control for selection into marriage with an employed partner. 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.

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 in the previous section. Results for women are robust to alternative definitions of the time devoted to household production. As in the regressions of Table 2 for White women, we observe in Columns (1) to (3) that White women devote fewer time to Total Housework if in couple with Black men than if in couple with White men, and that this finding is stronger on weekdays (Column (2)), for married women (Colum (3)), and for women with limited labor force participation (Column (4)). We also find that Black women devote more time to *Total Housework* if in couple with White men than if in couple with Black men, 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).

Results for men. Table 6 shows the results of estimating equation 6 on the time devoted to *Total Housework* by White men. The reference category is a childless White man living in the West and observed on Friday. It can be seen from Column (1) that relative to White men in couple with White women, White men in couple with Black women devote 0.6 of an hour less to *Total Housework* per day, which we interpret as evidence of the existence of Compensating Differentials by race. Additionally, we also obtain that such Compensating Differentials operate during weekdays (not on weekends) and for married men only.

Table 7 shows the results of estimating equation 6 on the 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 Compensating Differentials by race take the form of Black men married to White women supplying 1.7 hours of housework more per day than Black men married to Black women. Again, we must keep in mind that there are few observations and very few interracial married couples in which men have limited labor force participation, which helps explain why these results are only statistically significant at the 90% level.

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 'chores' than on 'housework' due to the way that we defined chores. 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 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, especially on weekends. Regardless of race 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 a larger added chores workload 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 does for women.

V. 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 and the concept of *WIH* defined as work in marital household production for the benefit of a spouse. Multiple markets for *WIH* include markets for men and women of different ethnicities, races, age groups, religions, etc. Ethnic or racial Compensating Differentials in Marriage originate to the extent that members of one group are preferred over members of another. Supplies of *WIH* are relatively large where the beneficiaries of *WIH* belong to preferred groups and consequently those beneficiaries pay lower 'prices' when marrying spouses who perform chores of benefit to them. At given incomes this translates into more chores performed by spouses for the benefit of members of a preferred group.

Comparing the time spent on chores and housework by intermarried and individuals in same-race couples offers an original way of examining whether Blacks have lower status than Whites in the U.S.A. We find that 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 counterparts in couple with White partners, where chores are a subset of home production activities with negative income and education elasticities. 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. Combined, these findings suggest that Whites in couple with Blacks obtain compensating differentials in the form of less time spent on housework.

Our analyses suggest that Blacks pay a price for being in couple with Whites rather than with Blacks: they are likely to obtain fewer minutes of chores work from their White partners and they are likely to perform more minutes of such work themselves: 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 counterparts in couple with Black partners, and intermarried Black men with low or no labor force participation do 1.7 hours of housework more than their counterparts in couple with

Black women. The size of the coefficients is large when compared to that of other factors associated with chore hours.

Our conceptual framework also led to predictions of stronger effects of intermarriage on weekdays, for subsamples of married respondents, for respondents with low or no labor force participation, and for respondents with employed spouses. Our findings also support those predictions. Results are more robust in the case of White women than in the case of Black women: in the case of White women they apply to all days of the week, as well as weekdays only, and to married women, especially to married women with limited labor force participation (who are more likely to be compensated for *WIH* they perform). In the case of Black women, intermarriage effects are only found for weekdays, and for women with limited labor force participation. Results are also more robust in the case of White men than in the case of Black women: for White men they apply to all days of the week, as well as weekdays only, and to married men with limited labor force participation. In the case of Black men, intermarriage effects are only found for men with limited labor force participation (married or cohabiting). However, we acknowledge that the low number of observations of Black men and women, and of interracial marriages, may be conditioning the analysis. A more in-depth analysis with a larger dataset is needed to support these results.

To establish whether these 'effects' are spurious results we estimated a three-equation model that endogenizes intermarriage and husband's employment status using our sample of White women. Accounting for selection makes little difference.

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 their partners supply for their benefit when they are in couple with a different-sex White partner or spouse. The existence of such price is consistent with reports of racial prejudice in the U.S., evidence of racial discrimination in labor markets, and other findings regarding Black/White differences in marriage that were documented in the introduction to this paper.

This study brings out the value of Becker's second Demand and Supply model of marriage--what we have called his Hedonic Marriage Market Model, a model in which

intra-marriage distribution is tied to household production and that allows for differential distributions of the product of marriage (and therefore differentials in time spent on chores) depending on a wide array of factors that can possibly shift either demand or supply in marriage markets. Becker only included a limited number of such factors in his own analyses of marriage, but the framework that he offered makes room for other factors that could possibly affect couple formation, distribution of the gains from marriage and all the behaviors associated with varying distributions. Linking that model to comparative statics models commonly applied to labor markets, as we did here thanks to the concept of Work-In-Marriage, led us to look for Compensating Differentials in Marriage.

Alternative models dealing with in-marriage distribution such as bargaining and collective models only explain racial differentials in distribution of the product of marriage as a function of racial attitudes of the respondents and their partners or as a function of remarriage options in case of divorce. A hedonic market analysis allows for more pervasive effects of racial attitudes that also apply in cases where individuals are unprejudiced and they do not consider divorce or remarriage as relevant options.

This paper reinforces the view that (1) individuals engage in *WIH* benefiting their partners; (2) individuals often get compensated for their household production work by their partners; and (3) compensations for *WIH* vary by intermarriage status. It therefore has implications for legal cases needing estimates of the value of household production. More importantly, increased awareness of the possible link between production and distribution in couples may help individuals establish more ways to make relationships—including marriages--work.

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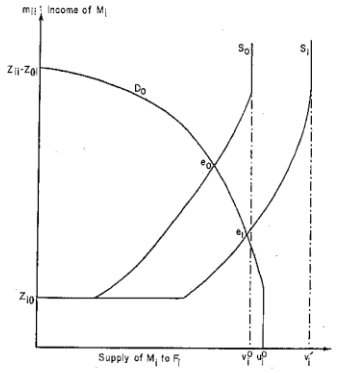

Figure 1 Becker's (1973) Fig. 2

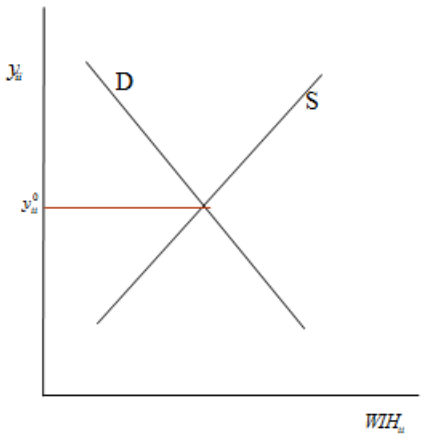

Figure 2. Market for Work-In-Household (*WIH*) by women F_i in couple with men M_i

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**
Chores	2.119	(2.112)	2.139	(2.113)	1.838	(2.076)	0.616	(1.143)	0.606	(1.119)	0.722	(1.374)
Total Housework	3.435	(2.762)	3.478	(2.765)	2.854	(2.651)	1.824	(2.350)	1.835	(2.362)	1.710	(2.215)
Partner Black	0.072	(0.259)	0.008	(0.009)	-	-	0.079	(0.270)	0.003	(0.030)	-	-
Partner White	0.928	(0.259)	-	-	0.049	(0.022)	0.921	(0.270)	-	-	0.116	(0.126)
Age Respondent	41.022	(10.219)	41.028	(10.263)	40.932	(9.591)	43.269	(10.591)	43.261	(10.621)	43.349	(10.270)
Older husband	0.241	(0.428)	0.237	(0.425)	0.292	(0.455)	0.193	(0.395)	0.189	(0.391)	0.241	(0.428)
Respondent 's hourly wage	2.794	(0.305)	2.798	(0.306)	2.743	(0.290)	3.055	(0.301)	3.072	(0.299)	2.883	(0.266)
Partner's hourly wage	2.574	(1.193)	2.573	(1.210)	2.590	(0.940)	1.792	(1.410)	1.787	(1.418)	1.838	(1.321)
Respondent 's education	13.990	(2.911)	13.989	(2.941)	13.997	(2.452)	13.756	(3.018)	13.783	(3.061)	13.463	(2.499)
Partner's education	13.937	(2.969)	13.958	(3.003)	13.647	(2.445)	13.897	(2.940)	13.906	(2.978)	13.803	(2.491)
Partner in Labor Force	-	-	-	-	-	-	0.710	(0.454)	0.708	(0.455)	0.726	(0.446)
Respondent disabled	0.023	(0.149)	0.021	(0.142)	0.054	(0.226)	0.033	(0.180)	0.030	(0.171)	0.067	(0.251)
Respondent foreign	0.135	(0.342)	0.135	(0.341)	0.139	(0.346)	0.138	(0.345)	0.139	(0.346)	0.128	(0.335)
Partner foreign	0.137	(0.344)	0.136	(0.343)	0.148	(0.356)	0.138	(0.345)	0.138	(0.345)	0.135	(0.342)
Nb of children <5	0.332	(0.633)	0.331	(0.629)	0.356	(0.683)	0.323	(0.628)	0.322	(0.628)	0.328	(0.620)
Nb of children 5-11	0.457	(0.760)	0.457	(0.760)	0.454	(0.765)	0.458	(0.773)	0.450	(0.766)	0.544	(0.841)
Nb of children 12-17	0.365	(0.671)	0.362	(0.670)	0.397	(0.690)	0.366	(0.689)	0.358	(0.678)	0.457	(0.794)
Hh non-labor income	61.437	(43.221)	62.301	(43.462)	49.594	(37.857)	49.688	(41.997)	50.386	(42.327)	42.272	(37.545)
Urban (vs. Rural) residence	0.807	(0.395)	0.802	(0.399)	0.873	(0.333)	0.804	(0.397)	0.798	(0.401)	0.863	(0.344)
Northeast	0.179	(0.384)	0.182	(0.386)	0.140	(0.347)	0.185	(0.388)	0.188	(0.391)	0.148	(0.355)
Midwest	0.266	(0.442)	0.273	(0.446)	0.174	(0.379)	0.259	(0.438)	0.265	(0.441)	0.188	(0.391)
South	0.347	(0.476)	0.328	(0.469)	0.607	(0.489)	0.348	(0.476)	0.327	(0.469)	0.566	(0.496)
N Interracial couples	181		131		50		197		50		147	
% Interracial couples	0.011		0.008		0.049		0.012		0.003		0.116	
N Observations	16,649		15,638		1,011		16,897		15,627		1,270	

Standard deviations 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. We include dummies to control for day of the week (Ref.: Friday). *Chores* and *Total Housework* are measured in hours per day, see Table A2 for a description of the activities included in *Chores*. See Table A3 for a description of all the variables. The individual participates in the labor force if she/he works at least 10 hours per week.

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

Urban (vs. Rural) residence	-0.050	-0.079	0.030	-0.057	0.053	-0.067	-0.093
	(0.054)	(0.068)	(0.077)	(0.055)	(0.222)	(0.124)	(0.059)
Northeast	0.115*	0.115	0.106	0.136*	-0.088	0.129	0.214***
	(0.068)	(0.085)	(0.101)	(0.071)	(0.208)	(0.135)	(0.081)
Midwest	-0.057	-0.062	-0.068	-0.062	-0.069	-0.019	0.004
	(0.061)	(0.077)	(0.090)	(0.064)	(0.203)	(0.132)	(0.071)
South	-0.036	-0.015	-0.068	-0.060	0.179	0.076	-0.083
	(0.059)	(0.075)	(0.086)	(0.061)	(0.225)	(0.118)	(0.068)
Constant	1.216***	1.822***	0.019	1.728***	-2.185*	1.624**	1.133***
	(0.367)	(0.465)	(0.520)	(0.398)	(1.252)	(0.821)	(0.431)
N Interracial couples	131	65	66	101	30	30	71
R-Squared	0.108	0.133	0.061	0.107	0.145	0.146	0.084
N Observations	15,638	7,745	7,893	14,772	866	4,106	10,666

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

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. We include dummies to control for day of the week (Ref.: Friday). *Chores* is measured in hours per day, see Table A2 for a description of the activities included in *Chores.*

Table 4. Estimates with selection equations for White women

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

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. We include dummies to control for day of the week (Ref.: Friday). *Chores* is measured in hours per day, see Table A2 for a description of the activities included in *Chores*.

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

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

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. We include dummies to control for day of the week (Ref.: Friday). *Total Housework* is measured in hours per day, definition obtained from the definition of Burda, Hamermesh and Weil (2008).

Table 6. OLS regressions of total housework for White men

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

Standard errors in parentheses. *Significant at the 90% level **Significant at the 95% level ***Significant at the 99% level Age range: men 21-65. Source: ATUS 2003-2009. We include dummies to control for day of the week (Ref.: Friday). *Total Housework* is measured in hours per day, definition obtained from the definition of Burda, Hamermesh and Weil (2008)

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

Standard errors in parentheses. *Significant at the 90% level **Significant at the 95% level ***Significant at the 99% level Age range: men 21-65. Source: ATUS 2003-2009. We include dummies to control for day of the week (Ref.: Friday). *Total Housework* is measured in hours per day, definition obtained from the definition of Burda, Hamermesh and Weil (2008).

Appendix

Table A1. Heckman's Model for Wage

	Men		Women	
	Hourly Wage	Employment	Hourly Wage	Employment
Married	0.092***	0.144***	0.049***	-0.394***
	(0.005)	(0.014)	(0.006)	(0.010)
Never married	-0.050***	-0.020	-0.027***	-0.016
	(0.006)	(0.020)	(0.005)	(0.015)
Ho High-School Degree	-0.203***	-0.129***	-0.224***	-0.418***
	(0.005)	(0.015)	(0.007)	(0.009)
Some College	0.105***	0.097***	0.147***	0.213***
	(0.004)	(0.015)	(0.004)	(0.010)
College	0.404***	0.221***	0.477***	0.193***
	(0.004)	(0.015)	(0.005)	(0.009)
More than College (doctorate)	0.566***	0.243***	0.682***	0.380***
	(0.006)	(0.021)	(0.006)	(0.015)
Age	0.045***	0.140***	0.043***	0.116***
	(0.002)	(0.003)	(0.001)	(0.003)
Age Squared	-0.044***	-0.189***	-0.043***	-0.158***
	(0.002)	(0.003)	(0.002)	(0.004)
Black	-0.154***	-0.274***	-0.042***	0.041***
	(0.006)	(0.013)	(0.004)	(0.010)
Hispanic	-0.163***	0.154***	-0.076***	-0.057***
	(0.005)	(0.014)	(0.004)	(0.010)
Northeast	0.072***	0.007	0.081***	0.022**
	(0.005)	(0.014)	(0.004)	(0.010)
Midwest	0.011***	0.028**	0.016***	0.126***
	(0.004)	(0.014)	(0.005)	(0.009)
West	0.083***	-0.071***	0.103***	-0.022**
	(0.005)	(0.014)	(0.004)	(0.010)
Non-Urban area	0.116***	0.027	0.129***	-0.031*
	(0.007)	(0.027)	(0.007)	(0.017)
Own kids	-	0.111***	-	-0.106***
	-	(0.016)	-	(0.010)
Number of children <5	-	-0.059***	-	-0.251***
	-	(0.010)	-	(0.007)
Number of children <18	-	-0.021***	-	-0.100***
	-	(0.007)	-	(0.005)
Student	-	-1.327***	-	-1.204***
	-	(0.023)	-	(0.022)
Unemployment rate	-	-0.051***	-	-0.042***
	-	(0.004)	-	(0.004)
No housing tenure	-	-0.047*	-	-0.053***
	-	(0.024)	-	(0.016)
Farm/Business	-	0.295***	-	0.096***
	-	(0.018)	-	(0.011)
Constant	1.648***	-1.032***	1.422***	-0.611***
	(0.032)	(0.079)	(0.029)	(0.067)
Inverse Mills Ratio	-0.245***	-	-0.095***	-
	(0.016)	-	(0.012)	-
Observations	98,883	116,313	96,480	138,170

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
Travel related to housework	**-0.086**	**Food and drink preparation**	**-0.0352**
Travel related to civic obligations & participation	-0.0752	**Interior cleaning**	**-0.0316**
Food and drink preparation	**-0.0719**	**Travel to/from the grocery store**	**-0.0315**
Interior cleaning	**-0.0716**	**Grocery shopping**	**-0.0312**
Using social services	-0.0703	Household & personal e-mail and messages	-0.0188
Travel to/from the grocery store	**-0.0607**	**Travel related to housework**	**-0.0164**
Waiting associated w/civic oblig. & participation	-0.0454	Travel to/from other store	-0.0134
Vehicle repair and maintenance (by self)	-0.0448	**Laundry**	**-0.0133**
Laundry	**-0.0397**	Travel related to using home main./repair/décor. svcs	-0.013
Grocery shopping	**-0.0287**	Picking up/dropping off household adult	-0.0122
Helping household adults	-0.0283	**Kitchen and food clean-up**	**-0.0117**
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
Kitchen and food clean-up	**-0.0205**	Using home maint/repair/décor/construction svcs	-0.01

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

Variables	Definitions
Chores	Hours per day respondent devoted to *Household Chores*
Total Housework	Hours per day respondent devoted to *Total Housework*
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 U.S.A.
Partner foreign	Dummy variable equal to 1 if the respondent's partner was born outside of the U.S.A.
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