

# **Racial Intermarriage and Household Production<sup>1</sup>**

Shoshana Amyra Grossbard  
**San Diego State University, University of Zaragoza, IZA and CES-ifo**

J. Ignacio Gimenez Nadal  
**University of Zaragoza and Centre for Time Use Research**

and

José Alberto Molina  
**University of Zaragoza and IZA**

May 29, 2012

## *Abstract*

*We investigate whether in the US hours of household work vary by whether individuals are in different-race or same-race couples. 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 0.3 fewer hours per day to chores than their counterparts in all-white marriages, which is comparable to the effect of a 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. Selectivity into intermarriage does not seem to explain the findings.*

**JEL CODES:** D13, J12, J22

**KEYWORDS:** Marriage Market, Time Use, Chores, Racial Intermarriage

---

<sup>1</sup> This paper has benefited from the comments of participants at seminars at the University of Calgary, the University of Alberta in Edmonton, and the University of Nevada, Reno, and from anonymous referees. Helpful advice from Delia Furtado, Evelyn Lehrer, Shoshana Neuman and Arjan Non is gratefully acknowledged. The authors would like to express their thanks for the financial support provided by the Spanish Ministry of Education and Science (project ECO2008-01297) and the Ramon Areces Foundation.

Please address correspondence to Shoshana Grossbard, Department of Economics, San Diego State University, San Diego CA 92182; Phone: (619) 9923969; Fax (619) 5945062; Email: shosh@mail.sdsu.edu

## 1. Introduction

In the US being black has been associated with a wide range of disadvantages (Burke, 2008): blacks earn less than whites (Bergmann 1971, Smith and Welch 1989, Altonji and Blank 1999, Darity, Dietrich, and Guilkey 2001, Goldsmith, Hamilton, and Darity 2007), and have relatively lower marriage and couple formation rates (Spanier and Glick 1980, Hamilton, Goldsmith, and Darity 2009).

Many states in the US have a tradition of open discrimination against blacks in marriage markets in the form of miscegenation laws that were instituted by white legislatures and led to historically low racial intermarriage rates (Fryer 2007, Chiswick and Houseworth 2011). Increases in black/white intermarriage rates since the 1960s may have resulted from a reduction in such discrimination and the Supreme Court's 1967 decision ruling against miscegenation laws. A recent analysis of internet dating also indicates a disadvantage to being black in the US: Hitsch, Hortaçsu and Ariely (2006) estimate that relative to white men, African American men received only about half as many first-contact e-mails from white women.

Furthermore, Spanier and Glick (1980) and Hamilton et al. (2009) have documented that in the US black men who marry white women have higher education, income and occupational status than *endogamous* (marrying within their own group) black men, possibly indicating that black men have to 'pay' their way into marriage with white women. Similar differentials were found for immigrants marrying natives in Australia (Meng and Gregory 2005), France (Meng and Meurs 2009), and Germany (Nottmeyer 2011). In all these cases, women seem to prefer men from their own group and expect some 'compensation' when marrying minority men.

In this paper, we test whether in US marriage markets blacks are also disadvantaged in terms of spending more time on *chores* when in couple with whites than when endogamous. Our conceptual framework is based on Becker's (1965) theory of allocation of time and Becker's (1973) second Demand and Supply model, a model assuming that a market mechanism influences who marries whom as well as distributions of the gain from marriage (taking the form of intra-marriage allocation of time and money). Some distribution differentials across marriage markets may be a function of racial intermarriage: whites may get higher distributions when in couple with blacks than when endogamous, while blacks may get lower distributions when in couple with whites than when endogamous.

Previous studies have examined the association between distributions of the gain from marriage and labor supply, including Grossbard-Shechtman (1984) and Chiappori, Fortin and Lacroix (2002). The association between intermarriage and participation in the labor force was tested for ethnic intermarriage among Israeli Jews (Grossbard-Shechtman and Neuman 1988) and for racial intermarriage in Hawaii (Grossbard-Shechtman and Fu 2002). In all these analyses of (unobserved) distributions of the gain from marriage and labor supply, it is assumed that leisure is preferred to work in the labor force. An advantage of turning to chores as a testing ground for theories linking marriage market analysis with allocation of time is that by definition chores are more obviously less desirable than leisure. It could be more likely that limited access to the gain from marriage will lead to higher involvement in chores work within the household than to higher labor force participation. In this paper, we examine whether US whites spend less time on chores when in couple with blacks than when endogamous, and whether blacks spend more time on 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 John and Shelton (1997), 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), Bloemen and Stanca (2008), and Sayer and Fine (2010). While previous US time-use studies have controlled for race or investigated racial differences, our study is the first to focus on how individual allocation of time to household production varies with racial intermarriage.

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 (we use the terms 'marriage', 'husband', 'wife', 'spouse', and 'endogamy' even though some couples are cohabiting outside marriage). Some of our models take account of selection into intermarriage and into marriage with an employed man, following methods used in studies relating native/immigrant intermarriage to income or employment, such as Meng and Gregory (2005).

We find 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 a child older than 5 on women's time devoted to chores. White men also spend less time in housework if intermarried with black women than if endogamous, but estimated effects are smaller than for women and often insignificant statistically.

Even though results for blacks are less robust than for whites due to smaller sample size, they are also consistent with whites' preferred group status in marriage markets: when in couple with whites black women seem to devote more time to chores and housework than when endogamous. Results for black men seem to go in the same direction, but are less conclusive than those for black women.

Taken together, our findings 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 in the form of less own work in chores. They may also obtain more chore work from 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, Becker's (1973) Figure 2 reproduced here as Figure 1, is limited to a market for one type of man  $M_i$  and one type of woman  $F_i$ . The supply of men  $M_i$  shows how many men of type  $M_i$  are willing to

enter marriage 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:

*If  $e_{ii} \geq$  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:

*If  $e_{ii} \leq$  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 the 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 gain from marriage share  $e_{ii}^0$  is established in the  $M_i F_i$  market at the intersection of Demand and Supply. 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 men and  $n= i, j, k \dots N$  are all the types of women. In terms introduced by Rosen (1974) after the publication of Becker (1973), this model can be relabeled a hedonic market model and shares 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* (italics added)". The other variables introduced here are race and preferences for same-race marriage (racial endogamy).

In each hedonic market, equilibrium values  $e_{ii}^0$  are expected to be a function of a vector of male characteristics  $X_i$  that can possibly shift the supply of men  $M_i$  and a vector of female characteristics  $Z_i$  that can possibly shift the demand for such type of men:

$$(1) e_{ii} = f(X_i, Z_i)$$

Alternatively, we could present markets for women of type  $F_j$  willing to marry men  $M_i$  in which equilibrium values of  $e'_{ji}$ , the share of the gain from marriage that women may receive, are established. Equilibrium shares of the gain from marriage obtained by men and women are related according to  $e'_{ji} = 1 - e_{ji}$ .

Applying this framework to separate marriage markets defined by race, we focus on four markets: endogamous markets for whites, endogamous markets for blacks, markets for marriages between black men and white women, and markets for marriages between white men and black women. We assume that both blacks and whites prefer endogamy and that preferences for endogamy are stronger among whites than among blacks (possibly due to whites' discrimination against blacks that is not totally reciprocated by blacks' discrimination against whites).

For example, consider marriage markets in which white women  $F_w$  are the suppliers, and where both  $X$  and  $Z$  are dummies 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 (rather than black) men it follows that white women's market supply to black men in this interracial marriage market will be smaller than their aggregate supply to white men in the market for endogamous marriages. If all other factors are controlled for and the demand in both markets is the same, comparative statics analysis leads to  $e'_{wB} > e'_{ww}$ , implying that white women will obtain a higher portion of the gain from marriage if they are in couple with black men than if they are endogamous. This prediction 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.

Most individuals prefer more leisure and less work, and are therefore likely to translate their advantages in marriage markets into a lighter workload in home

production. Therefore, intra-household distributions of the gain from marriage are likely to be positively related to leisure time, and negatively related to time spent doing chores or working in the labor force (see Grossbard-Shechtman 1984, Chiappori, Fortin and Lacroix 2002). We therefore expect white women in interracial marriages to perform fewer chores compared to their counterparts in endogamous marriages.

Unobserved intra-household distributions of the gain from marriage are also a function of income, number of children, and other relevant variables. The better we control for these variables, the more likely we are to find that *white women married to black men will supply fewer hours of chores than endogamous white women (prediction 1)*.

If white men prefer to marry white women (and such preference for endogamy is incompletely reciprocated by black women), this amounts to a relatively small demand for black women in interracial marriages relative to the demand for black women by black men. A comparison of markets for endogamous black women and black women married to white men thus implies  $e'_{BB} > e'_{BW}$  and that *black women in couple with white men will spend more time on chores than comparable endogamous black women (Prediction 2)*.

Men may also obtain intra-household transfers that depend on their intermarriage status. The same set of asymmetric preferences for interracial marriage discussed above implies that white men in couple with black women will receive a higher share of the gain from marriage than their endogamous counterparts, i.e.  $e_{WW} < e_{BW}$ . This implies that *white men intermarried with black women will work less at chores than endogamous white men (Prediction 3)*.

As for black men, the existence of white own-kind preferences exceeding those of blacks leads us to predict  $e_{BB} > e_{WB}$  and that *black men married to white women will work more at chores than endogamous black men (Prediction 4)*.

All four predictions are more likely to be supported by empirical evidence when household production activities are more likely to be considered as chores. 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).

*b/ for married than unwed.* Relative to unwed couples, married couples are more likely to establish implicit contracts involving distribution of the gain from marriage as well as division of labor in the household. Therefore, determinants of share of the gain, such as interracial marriage, are more likely to be associated with time spent on chores for married than for unwed couples.

*c/ when respondents are not employed in the labor force or they have limited working hours.* More chore-type activities are likely to be reported by respondents who are not employed or work few hours in the labor force than by fully employed men and women. The more respondents engage in chores or housework, the more we are likely to observe an effect of intermarriage on household production time.

*d/ when spouses are fully employed than when spouses are not fully employed.* Respondents with fully employed spouses are more likely to engage in household production: it is more likely that they have implicit contracts (possibly related to marriage contracts) regarding division of labor, with respondents doing more chores and spouses bringing in more earned income.

### **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 (1,440 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. 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 *Chores* in two ways following 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. 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>2</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), Hersch and Stratton (2002), and Sevilla-Sanz, Gimenez-Nadal and Fernandez (2010).<sup>3</sup>

Given that the time devoted to household production by men in the US has been shown to be limited relative to that of women (Aguilar and Hurst 2007, Hersch 2009), 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 found that parents report spending time with their children as being among their more enjoyable activities (Juster and Stafford 1985, Robinson and Godbey 1997, Kahneman et al. 2004, Kahneman and Krueger 2006). 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

---

<sup>2</sup>Hamermesh (2007) finds a negative relationship between income and time allocated to household production.

<sup>3</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.

definitions of ‘black’ (e.g., excluding the category “black-white”), with results being 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. It can be seen from columns 1 and 4 that men devote much less time than women to both *Chores* and *Total Housework*: 2.1 and 3.4 daily hours to *Chores* and *Total Housework* in the case of women, versus 0.6 and 1.8 hours in the case of men. 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 whites.

Columns (2) and (3) describe the data for white and black women with employed husbands, Column (5) for white men and Column (6) for black men. It can be seen that on average white women spend slightly more time on chores than black women (2.1 vs. 1.8 hours per day). 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, women in our sample are 41 years old. 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: 12% versus 3 per thousand. Black men are more than twice as likely to be intermarried than black women, which is consistent with other studies (Kalmijn 1993, 1998, Blackwell and Lichter 2000, Crowder and Tolnay 2000).

### 3.2 Empirical Strategy

We begin with regressions of *Chores* performed by women. We first run OLS regressions of time in 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:

$$(2) \text{Chores}_{ijt} = \alpha_3 + \text{intermarried}_{ijt} \delta_1 + X_{ijt} \delta_2 + \varepsilon_{ijt}$$

where *Chores* is the time devoted to 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. 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 US 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 to a disadvantage for men competing in the marriage markets, and consequently a higher share of gain from marriage for women (see, *ceteris paribus*, Grossbard-Shechtman and Neuman 1988). The vector  $X$  also includes wife’s and husband’s education, wife foreign-born, and husband foreign-born. In addition, it includes own predicted wage, spouse’s predicted wage and a dummy for disability.

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>4</sup>

We calculate predicted wages using a large CPS sample and the Heckman (1979) two-step technique. We compute the log of hourly wages to allow for non-linear effects, and we bootstrap 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,

---

<sup>4</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 do not have data on time use of both members of the couple.

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, Hispanic, region of residence, and urban. Race of respondent, region of residence, and urban are computed according to CPS categories.

Vector  $X$  in equation 2 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, 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, (Robinson and Godbey 1997, Hamermesh 2007, 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.

In our principal equation, household characteristics also include 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 chores, with this correlation being higher for younger children. Vector  $X$  includes urban residence and region (the reference being West).

Two variables purposely omitted from  $X$  are married 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 took account of these factors by estimating separate regressions by married status 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. We also estimate separate equations for weekdays and weekends and for married and unwed couples. When not distinguishing 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 re-estimating our models using *Total Housework* instead of *Chores*. 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) and estimate three-equation models. 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 (sample size 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:

$$(3) \quad \text{Husband Black}_{ijt} = \alpha_1 + P_{jt}\beta_1 + \text{Loving}_{jt}\beta_2 + Y_{ijt}\beta_3 + \varepsilon_{ijt}$$

$$(4) \quad \text{Husband Employed}_{ijt} = \alpha_2 + P_{jt}\gamma_1 + UE_{jt}\gamma_2 + Z_{ijt}\gamma_3 + \varepsilon_{ijt}'$$

These are estimated using the Bivariate Probit method. The third equation is a modified equation (2) 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:

$$(2') \text{Chores}_{ijt} = \alpha_3 + \text{Husband Black}_{ijt}\delta_1 + X_{ijt}\delta_2 + \lambda_{ijt}\delta_3 + \varepsilon_{ijt}''$$

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 (3) 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 of residence "j" and year "t". Respondent's age is defined in 5-year age groups. Given that the difference in mean age at marriage in the

US 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 (3) 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 US 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. We combined the states that voluntarily repealed their anti-miscegenation laws, and only use two dummies for states that *never* had anti-miscegenation laws and states forced to repeal such laws after the Supreme Court ruling. We expect white women to be less likely to intermarry in states that repealed their miscegenation laws only after the ‘Loving’ decision.

To identify selection for an employed spouse (equation 4) we use two other macro-level variables as instruments: state unemployment rate and the state minimum wage. The third instrument is urban vs. rural residence. Both equations (3) and (4) also include most of the same control variables included in the chores equation.

## 4. Results

### 4.1 Women

Table 2 shows the results of estimating time devoted to *Chores* by *white women* with employed husbands using equation (2).<sup>5</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 0.33 fewer hours per day to *Chores*:  $\delta_1 < 0$  as predicted. This result, based on a comparison of 131 intermarried and more than 15,000 endogamous

---

<sup>5</sup> Results for all women, including those whose husbands are not employed, are available upon request.

women, is significant at the 5% level. The effect is quite large: in absolute value the presence of a black partner matters as much as the presence of a child above age 5.

We also find that  $\delta_1 < 0$  only holds for weekdays. While based on a smaller sample of 7,745 women interviewed on weekdays, of whom 65 were intermarried, this result is significant at the 1% level. This makes sense, for on weekends activities such as shopping or cooking are more likely to be considered as leisure and less likely to be inversely related to intra-marriage distribution.

A comparison of cols. (4) and (5) reveals that our finding of a negative delta holds only for married women. For them, the effect of intermarriage is 0.4 of an hour per day. This result is significant at the 1% level and based on more than 100 intermarried white women out of a total of more than 14,000. A stronger effect was predicted for married than for unmarried women, given that they are more likely to ‘work’ in chores while their husbands work in the labor force. We also estimated chores regressions for women with limited labor force participation, a group likely to include ‘housewives’ (LLFP; col. 6). While this result is based on only 30 intermarried couples, it suggests a very large effect of intermarriage on chores by housewives. Col. 7 indicates no effect of intermarriage for white women who work at least 10 hours a week in the labor force.

Table 3 shows parallel results for black women with employed husbands. These results are solely of a suggestive nature, as they are based on slightly more than 1,000 women, of whom only 50 were intermarried. We had predicted  $\delta_1 > 0$ . Column (1) reveals that even though the coefficient of intermarriage is positive and in absolute value 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. However, a positive and significant (at the 10% level) coefficient of intermarriage is found for weekdays, but based on only 501 observations, including 25 intermarried women.

Consistent with the predictions, we thus find a negative effect of intermarriage for white women and (tentatively) a positive effect for black women. This contrast is not due to black women performing more chores in general: overall black women spend less time on chores than white women. In contrast to the positive  $\delta_1$  that we find on weekdays, black women seem to perform fewer chores on weekends when intermarried

than when endogamous. Sample size does not permit a further breakdown between married and unmarried, or LLFP and non-LLFP in the case of black women.

Next, we deal with the question of whether the statistically significant coefficients of intermarriage that we reported for white women indicate effects of intermarriage on chores or originate from *selection into intermarriage* by women less prone to perform chores. Alternatively, an unaccounted variable could simultaneously cause intermarriage and lower levels of chores among white women. Given the sample sizes, we only try to disentangle these causalities for white women. Table 4 shows the results of estimating equations (3), (4) and (2') 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. Column (3) shows the result of estimating equation (2') containing the inverse of Mill's ratio in order to control for selection.

Table 4 shows that after we take account of selection into intermarriage, white women in couple with black men devote 0.4 of an hour less per day to chores. 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 regression 3 in Table 4 is very similar to regression 1 in Table 2, and the inverse of the Mill's ratio reaches low significance.<sup>6</sup> It thus appears that selection into intermarriage does not play a major role here. Therefore, the rest of our estimations are based solely on simple equations of chores and housework.

Table 5 shows the results of estimating equation (2) 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 thus 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 effect appears to be larger on weekdays (Column (2)), for married women (Column (3)), and for women with limited labor force

---

<sup>6</sup>We also estimated the selection regressions using clustering by state of residence and found that the coefficients were unchanged. Standard errors were slightly lower.



participation (Column (4)). We also re-estimated a regression for black women interviewed on weekdays (Column 5) and found a result very similar to that obtained using ‘chores’ as the dependent variable (Table 3).

#### **4.2 Men**

Table 6 shows the results of estimating equation (2) for time devoted to *Total Housework* by white men. Only 50 white men out of 15,267 were married to black women so these results are only suggestive. The reference category in Column (1) is a childless white man living in the West and observed on Friday. We find a negative delta, as predicted: relative to their endogamous counterparts, intermarried white men devote 0.6 of an hour less to total housework per day. Given that on average they work 1.8 hours in housework, 0.6 is a large coefficient. As was the case for women, effects of intermarriage only appear on weekdays. This effect is only found for married men (col. 4).

Even though there are fewer black men than white men in our data, the number of black men in interracial couples is substantially larger than the number of white men in such couples. Table 7 shows the results of estimating equation (2) for time devoted to *Total Housework* by black men. Most coefficients of ‘intermarried’ are statistically insignificant. The only positive coefficients that are statistically significant (at the 5% level) are for very small samples of men with limited labor force participation (Columns 5 and 6).

#### **4.3 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)), possibly reflecting both income and substitution effects. 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). In contrast, wife’s wage is positively associated with white men’s household work (Table 6), possibly reflecting a substitution effect. 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.

In most regressions, the presence of children adds significantly to time devoted to chores. In absolute value, the presence of a child under age 5 does not affect women's allocation of time to chores significantly more than does being intermarried, and the effect of a child ages 6 to 17 is about the same. Children age 12 to 17 add to the chores work of white women across all samples, but not always in the case of black women. Children also add to men's housework hours, but not as consistently as they do for women.

#### **4.4 Discussion**

That white women work less at chores if intermarried than if endogamous is consistent with intermarried white women obtaining more access to the gain from marriage, relative to their endogamous counterparts. To the extent that our findings for blacks are reliable and black women work more at chores if intermarried than if in an endogamous relationship, this may mean that they obtain less access to the gain from marriage if intermarried than if endogamous. Suggestive findings for intermarried and endogamous men go in the same direction.

We used marriage market analysis to predict that access to the gain from marriage is a function of demand and supply in marriage markets, defined by the ethnicity of both men and women. Relative to their endogamous counterparts, intermarried whites may get higher distributions, and intermarried blacks may get lower distributions in marriage, resulting in lower workloads for intermarried whites and higher workloads for intermarried blacks. Workloads were translated in terms of hours of chores or housework in the case of women, and hours of housework in the case of men.

We find more effects of intermarriage on chores performed on weekdays than on weekends, which is consistent with housework being less likely to be considered 'work' on weekends. Stronger findings for married women than for unwed women are consistent with married women being more likely to work at home in return for their husbands' work in the labor force than is the case with unmarried women.

Alternative models dealing with in-marriage distribution, such as bargaining and collective models, may also explain some of these results. These models 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 usually assumes that individuals in intermarried and endogamous couples differ in their remarriage options were they to divorce. In contrast, our predictions apply even if the members of a particular couple do not consider divorce or remarriage as relevant options, as they follow from differences in demand and supply in same-race and interracial hedonic marriage markets.

#### **4 Conclusions**

Time devoted to household production activities by white and black men and women in the US was analyzed as a function of whether they were racially intermarried or not. The analysis originated with Becker's (1973) second Demand and Supply model of marriage, according to which intra-marriage distribution is a function of gain from marriage and conditions in marriage markets. It was predicted that at given incomes and relative to their endogamous counterparts, blacks in couple with whites would perform more chores and that whites in couple with blacks would perform fewer chores. It was also predicted that statistical associations between intermarriage and chores or housework would be strongest in circumstances where household production is more likely to be considered as *work* rather than as leisure: on weekdays, when respondents have limited involvement in the labor force, when couples are married rather than cohabiting, when respondents have low or no participation in the labor force, and when spouses have high levels of labor force participation.

Due to limited sample sizes, robust findings apply mostly to white women. We find that, overall, 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. We are able to establish that for these women the 'effects' of intermarriage are not spurious: a three-equation model that endogenizes intermarriage and husband's employment status reveals that accounting for selection makes little difference. The size of the intermarriage coefficients is large when compared to that of well-known factors associated with chores, such as the presence of children. As

predicted, effects of intermarriage seem to be stronger on weekdays, for married respondents, and for respondents with limited labor force participation.

White men also seem to 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. Even though results for blacks are less robust than for whites, due to smaller sample size, they also suggest that in the US marriage markets whites are a preferred group status: when in couple with whites, black women seem to devote more time to chores and housework than when endogamous. Results for black men seem to go in the same direction but are less conclusive than those for black women. A more in-depth analysis with a larger dataset is needed to support the results for black men and women, and white men.

Our study suggests that blacks pay a price when in couple with whites, in the sense that their partners seem to supply a reduced amount of household production relative to what they can expect from a black partner. Racial intermarriage seems to benefit whites in the form of the extra time their black partners spend on household production. Our findings are consistent with a lower value of blacks in US marriage markets, relative to the value of whites. This may be another disadvantage associated with being black in the US. It is hoped that further studies will provide more accurate tests, allowing verification of this exploratory research.

## 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.
- 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.
- 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. Stanca. (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. Stanca. (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., B. Fortin, and G. Lacroix (2002), "Marriage Market, Divorce Legislation, and Household Labor Supply," *Journal of Political Economy* 110: 37-71.
- 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. Darity, Jr. (2007). "From Dark to Light: Skin Color and Wages Among African Americans," *Journal of Human Resources* 42(4): 701-738
- Grossbard-Shechtman, A. (1984). "A Theory of Allocation of Time in Markets for Labour and Marriage," *Economic Journal* 94(376): 863-882.

- 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.
- 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. (2009). "Home Production and Wages: Evidence from the American Time Use Survey," *Review of Economics of the Household* 7(2): 159-178
- 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.
- 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.

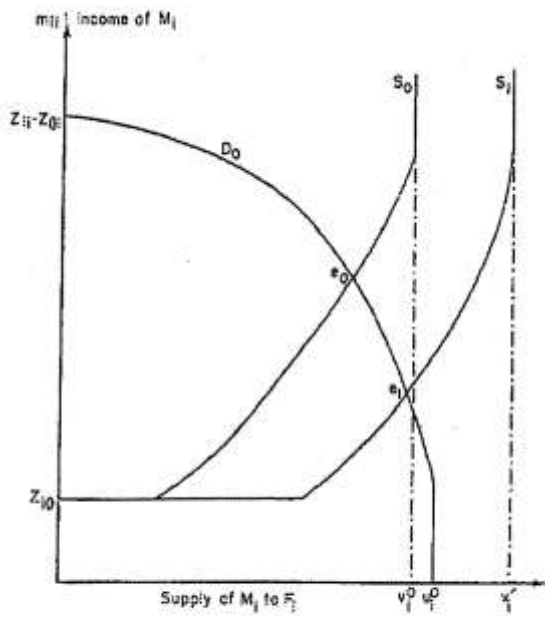


Figure 1 Becker's (1973) Fig. 2

**Table 1. Summary Statistics**

	(1) All Women		(2) White Women		(3) Black Women		(4) All Men		(5) White Men		(6) Black Men	
	<u>Mean</u>	<u>SE</u>	<u>Mean</u>	<u>SE</u>	<u>Mean</u>	<u>SE</u>	<u>Mean</u>	<u>SE</u>	<u>Mean</u>	<u>SE</u>	<u>Mean</u>	<u>SE</u>
<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>Olde 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><u>Other Ind. and Hh. Characteristics</u></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 (0.054)	-0.079 (0.068)	0.030 (0.077)	-0.057 (0.055)	0.053 (0.222)	-0.067 (0.124)	-0.093 (0.059)
<i>Northeast</i>	0.115* (0.068)	0.115 (0.085)	0.106 (0.101)	0.136* (0.071)	-0.088 (0.208)	0.129 (0.135)	0.214*** (0.081)

<i>Midwest</i>	-0.057 (0.061)	-0.062 (0.077)	-0.068 (0.090)	-0.062 (0.064)	-0.069 (0.203)	-0.019 (0.132)	0.004 (0.071)
<i>South</i>	-0.036 (0.059)	-0.015 (0.075)	-0.068 (0.086)	-0.060 (0.061)	0.179 (0.225)	0.076 (0.118)	-0.083 (0.068)
<i>Constant</i>	1.216*** (0.367)	1.822*** (0.465)	0.019 (0.520)	1.728*** (0.398)	-2.185* (1.252)	1.624** (0.821)	1.133*** (0.431)
<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. \* $P < 0.1$ ; \*\*  $P < 0.05$ ; \*\*\*  $P < 0.01$ . 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)
	All Women	Weekday	Weekend
<i>Husband white</i>	0.411 (0.524)	1.231* (0.701)	-1.459*** (0.256)
<b><i>Other Ind. and Hh. Characteristics</i></b>			
<i>Age wife</i>	0.058 (0.075)	0.064 (0.089)	0.060 (0.105)
<i>Age wife, squared</i>	-0.049 (0.084)	-0.053 (0.103)	-0.055 (0.121)
<i>Older husband</i>	0.270 (0.170)	0.288 (0.212)	0.169 (0.265)
<i>Wife's hourly wage</i>	-0.327 (0.631)	-0.587 (0.754)	-0.169 (1.017)
<i>Husband's hourly wage</i>	0.039 (0.085)	0.134 (0.093)	-0.174 (0.156)
<i>Wife's education</i>	-0.034 (0.080)	-0.012 (0.097)	0.005 (0.114)
<i>Husband's education</i>	-0.033 (0.041)	-0.053 (0.051)	0.020 (0.063)
<i>Wife disabled</i>	0.317 (0.368)	0.405 (0.413)	-0.274 (0.809)
<i>Wife foreign</i>	-0.114 (0.294)	-0.166 (0.364)	0.025 (0.444)
<i>Husband foreign</i>	0.191 (0.286)	0.258 (0.367)	0.035 (0.399)
<i>Nb of children &lt;5</i>	0.280** (0.134)	0.334* (0.171)	0.244 (0.160)
<i>Nb of children 5-11</i>	0.281** (0.109)	0.335*** (0.148)	0.086 (0.125)
<i>Nb of children 12-17</i>	-0.031 (0.111)	-0.233* (0.124)	0.156 (0.205)
<i>Hh non-labor income</i>	-0.002 (0.002)	-0.005* (0.003)	0.004 (0.003)
<i>Urban (vs. Rural) residence</i>	0.166 (0.284)	0.022 (0.385)	0.404 (0.283)
<i>Northeast</i>	-0.040 (0.399)	-0.222 (0.526)	-0.614 (0.455)
<i>Midwest</i>	-0.432 (0.391)	-0.514 (0.494)	-0.945** (0.455)
<i>South</i>	-0.524 (0.352)	-0.688 (0.445)	-0.681 (0.427)
<i>Constant</i>	1.690 (1.723)	2.300 (2.092)	0.449 (1.698)
<i>R-Squared</i>	0.073	0.106	0.073
<i>N Observations</i>	1,011	501	560

Notes: see Table 2.

**Table 4. Estimates with Selection Equations for White Women**

	(1) Husband black	(2) Husband employed	(3) 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>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) White Women	(2) White Women Weekday	(3) Married White Women	(4) Married White Women with LLFP	(5) 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><u>Other Ind. and Hh. Characteristics</u></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>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. \* $P < 0.1$ ; \*\*  $P < 0.05$ ; \*\*\*  $P < 0.01$ . 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) All Men	(2) Weekday	(3) Weekend	(4) Married Men
<i>Wife black</i>	-0.587*** (0.196)	-0.589*** (0.210)	-0.561 (0.501)	-0.560** (0.220)
<b><u>Other Ind. and Hh. Characteristics</u></b>				
<i>Age husband</i>	0.056** (0.024)	0.044 (0.030)	0.092** (0.036)	0.051* (0.026)
<i>Age husband, squared</i>	-0.055** (0.027)	-0.040 (0.033)	-0.097** (0.040)	-0.049* (0.029)
<i>Older husband</i>	0.038 (0.059)	0.046 (0.073)	0.018 (0.095)	0.041 (0.061)
<i>Husband's hourly wage</i>	-0.377** (0.181)	-0.512** (0.222)	-0.033 (0.302)	-0.458** (0.192)
<i>Wife's hourly wage</i>	0.053* (0.030)	0.022 (0.038)	0.121*** (0.045)	0.043 (0.031)
<i>Husband's education</i>	0.041** (0.017)	0.031 (0.021)	0.066** (0.026)	0.043** (0.018)
<i>Wife's education</i>	0.000 (0.011)	0.012 (0.014)	-0.030* (0.017)	-0.001 (0.012)
<i>Wife in Labor Force</i>	(0.060) (0.089)	(0.123) (0.111)	(0.069) (0.136)	(0.084) (0.091)
<i>Husband disabled</i>	0.033 (0.131)	0.322** (0.161)	-0.734*** (0.193)	-0.009 (0.131)
<i>Husband foreign</i>	-0.106 (0.093)	-0.110 (0.115)	-0.055 (0.157)	-0.125 (0.094)
<i>Wife foreign</i>	-0.035 (0.094)	-0.081 (0.116)	0.053 (0.158)	-0.031 (0.095)
<i>Nb of children &lt;5</i>	0.011 (0.045)	0.017 (0.055)	0.002 (0.063)	0.007 (0.048)
<i>Nb of children 5-11</i>	0.013 (0.028)	0.012 (0.035)	0.018 (0.045)	0.012 (0.029)
<i>Nb of children 12-17</i>	0.029 (0.043)	0.049 (0.053)	-0.022 (0.059)	0.031 (0.045)
<i>Hh non-labor income</i>	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
<i>Urban (vs. Rural) residence</i>	0.128** (0.060)	0.153** (0.073)	0.050 (0.102)	0.156** (0.062)
<i>Northeast</i>	-0.150** (0.072)	-0.270*** (0.088)	0.168 (0.119)	-0.134* (0.075)
<i>Midwest</i>	-0.031 (0.071)	-0.067 (0.089)	0.062 (0.107)	-0.023 (0.074)
<i>South</i>	-0.252*** (0.067)	-0.304*** (0.083)	-0.126 (0.103)	-0.237*** (0.070)
<i>Constant</i>	0.834* (0.477)	1.433** (0.592)	-0.170 (0.705)	1.175** (0.562)
<i>R-Squared</i>	0.067	0.013	0.02	0.068
<i>N Observations</i>	15,627	7,852	7,775	14,733

Notes: see Table 5.

**Table 7. OLS Regressions of Total Housework for Black Men**

	(1)	(2)	(3)	(4)	(5)	(6)
	AllMen	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><u>Other Ind. and Hh. Characteristics</u></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>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 Models 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. \* $P < 0.1$ ; \*\* $P < 0.05$ ; \*\*\* $P < 0.01$ . 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>Chores</i>
Total Housework	Hours per day respondent devoted to <i>Total Housework</i>
Partnerblack	Dummy variable equal to 1 if the respondent's partner classified as "black only" or "white-black"
Partnerwhite	Dummy variable equal to 1 if the partner classified as "white only"
AgeRespondent	Respondent's age in years
Olderhusband	Dummy variable equal to 1 if the male partner is 5 or more years older than the female partner
Respondent's hourlywage	Log of the respondent's hourly wage, predicted
Partner'shourlywage	Log of the respondent's partner hourly wage, predicted
Respondent's education	Years of educational attainment of the respondent
Partner'seducation	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
Respondentdisabled	Dummy variable equal to 1 if the respondent is disabled
Respondentforeign	Dummy variable equal to 1 if the respondent was born outside of the US
Partnerforeign	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

---