

UNEQUAL LOADS: THE GENDER DIVISION OF LAUNDRY

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# UNEQUAL LOADS: THE GENDER DIVISION OF LAUNDRY

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## CHAPTER I

### INTRODUCTION

Ever since Blood and Wolfe's (1960) landmark study of couples, a considerable amount of research on gender and the family has centered on differential power and decision-making. One of the most studied areas concerns the division of labor in the household, with the most persistent finding being that women do more housework than men. Scholars have attempted to explain this difference by using factors such as the couple's financial situation, the time and resources they have available, how economically dependent one partner is on the other, as well as their gender ideologies. In addition, comparative studies have documented the degree men's and women's share of housework depends on structural and cultural differences between and among countries.

At the risk of oversimplification, this housework gap has decreased significantly over time, but women's greater share of housework seems remarkably resilient to women's economic advances and changes in gender ideology. Because of the persistence of this gap, recent research has begun to focus on such issues as differences in men's and women's perception of who does what housework, changes across the life cycle, and the economic and psychological tolls of housework.

The purpose of this study is to add to this growing trend of focusing more closely on a particular aspect of the gender gap in housework by exploring a specific type of gendered housework— laundry. Laundry has been previously identified in the literature

as a female-typed task (Bianchi et al. 2000, Gupta et al. 2009) as well as one of the top five most time-consuming household tasks (Blair and Lichter 1991, Robinson and Godbey 1997). Laundry is a repetitive and relatively time-inflexible task, and it is unlike many other household tasks because it can be done inside or outside of the home—or even both. Unlike the female-typed tasks of grocery shopping (that overwhelmingly must be done away from the home) or cleaning (that must be done at the home), laundry can be done at many places: home, laundromat, a friend’s house, among others. Because laundry can be done both inside and outside of the home, it has the possibility of being a task that exaggerates the gender gap in household labor. People who don’t own their own washer or dryer have to go outside of their home to wash their clothes, possibly to other houses or laundromats. There is extra time, money, travel, and energy associated with leaving the home to do laundry, and since this task is already gendered it has the possibility of having unequally gendered consequences for American couples. In addition, the likelihood of having no access to laundry facilities inside one’s home is strongly related to socioeconomic status and homeownership.

This study aims to examine laundry compared to other household tasks. I argue that laundry done outside of the home is a specific gender-typed task that has the ability to exaggerate the gender gap because it is female-typed, repetitive, and is accompanied by extra time and monetary cost in the form of travel, and losing the ability to multitask in the ways you can at home. It has the possibility of being a task that not only exhibits the gender gap in housework, but also contributes disproportionately to it. This study also aims to examine specific class and gender issues that accompany doing laundry inside or



outside of the home. Who is doing laundry outside of the home? Are they spending more time doing it outside of the home?

More specifically, this study hypothesizes that laundry, unique because it can be done at or away from the home, exaggerates gender inequality. Drawing on previously established theoretical perspectives, I will analyze the economic and gender demographics of who does laundry inside and outside of the home and will examine the time spent in each location as well as well as the gender division. The results of this analysis have implications for gender, housework, and inequality research.

### Gender, Housework, and Inequality Literature

Many factors contribute to the gender gap in household labor. Tasks themselves are gender-typed. There are different “traditional” societal expectations for men and women, as well as structural constraints that influence how couples divide household labor. As a result, men and women in general perform different tasks in the home, and the specific tasks they do contribute to gender inequality. Housework hours, gender-typed tasks, time-flexibility, and perceived fairness are discussed below, as well as the penalties of gendered housework inequality.

#### *Housework Hours*

Although the gender gap in household labor has changed, there is still a difference between the hours performed by men and women. Women complete a larger share of total housework as well as core housework. Core housework is defined as “female typed” tasks, including house cleaning, preparing meals and cleaning them up, as well as doing laundry (Gupta et al 2009). Although there are slight differences in average weekly housework hours completed by married men and women, women overall still do more

housework, with a greater difference between housework completed by married couples (Bianchi et al. 2012, Blood and Wolfe 1960). By far, the largest difference in housework is seen in the core housework completed by married men and women. In 2010, married women did 14.2 hours of core housework and married men did 4.2 hours. Table 1 shows the trends in average weekly housework hours by gender from 1965-2010. Bianchi et al. (2012) suggested that the core housework gender gap is significantly wider than the gap for all housework; even though the gap in total housework and core housework has decreased over time, a significant difference between men and women still remains both between all housework performed and core housework.

### *Gender-Typed Tasks*

Some previous research has combined all forms of housework into one measure of “household labor,” and did not separate routine tasks and occasional tasks, or gender-typed tasks (Lye and Biblarz 1993, Sanchez and Thomson, 1997). When these studies used their “household labor” measure as a dependent variable, they were only able to explain a small part of the variance. It is important to analyze specific tasks and categories of housework when studying gender differences in household labor, because housework is highly gendered. One key reason for the persistence of the gender gap in household labor has to do with the “types” of tasks typically done by women and men. Research has shown traditional trends where women are held more responsible for household cleanliness, presentation, and health/child care (e.g. cooking, cleaning, shopping, child care) while men are more likely to take responsibility for home repair, lawn and garden care, other outside work, and auto repair (Coltrane 2000). This housework specialization contributes greatly to housework inequality. The female-typed

tasks, unlike the male-typed ones, are much more routine and need to be attended to daily or weekly (Brayfield 1992, Craig 2006, Milkie & Peltola 1999, Schneider 2012). The male-typed tasks have been classified more as “outside” or “nondaily” tasks, and can be postponed. Female-typed tasks such as cooking, laundry, and cleaning are less optional and less able to be postponed, unlike house repair or yard care, which are highly male-typed tasks.

### *Time-Flexibility*

In a similar vein, prior research has categorized male- and female-typed tasks into “time-flexible” and “time-inflexible” work. A time-inflexible task is one that is more likely to limit paid work and leisure opportunities (Hook 2010). These are tasks that are frequent, repetitive, and sometimes have to be done in a small specific time window—like cooking meals. Women tend to do a disproportionate amount of time-inflexible tasks (Coltrane 2000). Because women do more time-inflexible tasks, they face greater social, economic, and psychological consequences than men face.

Table 1														
Trends in Average Weekly Housework Hours, ages 25-64 (Bianchi et al 2012)														
Total Housework								Core Housework						
Year	1965	1975	1985	1995	1998/9	2003/4	2009/10	1965	1975	1985	1995	1998/9	2003/4	2009/10
All Women	30	23.7	19.7	17.5	16.4	16.9	16.2	26.9	21	16.3	13.9	12.7	13	12
All Men	4.9	7.2	9.8	10	11.3	9.9	10	2.3	2.5	4	3.8	5.6	3.7	4.4
Married Women	33.9	26.1	21.9	19.4	18.1	18.4	17.8	30.4	22.9	18.4	15.8	14.6	14.5	14.2
Married Men	4.7	6.7	10.4	10.4	12.5	10.1	10.3	1.8	1.9	4	3.7	5.8	3.5	4.2

### *Perceived Fairness*

A couple's perception of fairness in housework distribution is an interesting factor that contributes to housework inequality. Research suggests that we are far from achieving gender equality with housework, yet most Americans think their division of housework is fair (Coltrane 2000). When a child is added to the household, gender differences in housework are exaggerated considerably. In a recent study of dual-earner households, a woman's total work (which includes housework childcare, and paid work) was seen to increase 21 hours per week when a child is added to the family, while men's total work increased only 12.5 hours (Yavorsky et al. 2015). The total amounts increased, while still unequal, was not the most surprising finding. Yavorsky et al. (2015) reported that this increase in men's and women's housework was considerably gendered— women did not substitute childcare for any of their existing work, but men did.

Despite inequality in housework and childcare, men and women have different perceptions of the work they do. Fathers are more likely report that they do as much childcare and housework as their wives, showing that they overestimate the hours they contribute to the household (Pew Research Center 2015). Although total hours of housework are still important to study, research has shown that who does what type of housework is more important to couples' perception of fairness than anything else (Baxter, 2000). This study suggests that a sense of fairness is more important for a happy relationship than actually splitting the work equally. In Baxter's (2000) study, 59 percent of women reported that the division of labor in their household was fair even though they also answered that they carried the responsibility for the bulk of it. In the same study, 68 percent of men answered that the division of housework was fair. Although the majority

of research has examined couples, this housework inequality is seen even controlling for relationship or work status. Blau (1998) reported that employed married women did between 33-37 hours of house work a week, and men (regardless of their status of married, single, or without an employed wife) did between 5-8 hours of housework a week. But perceived fairness is just as important, if not more important, to couples than actual equal division.

### *Income Inequality*

The housework gender gap has potentially strong penalties for gender equality. A recent housework study of women in 33 countries showed that these penalties fall disproportionately on poor households. More specifically, in the poorest 10<sup>th</sup> of households, women spend an additional 7.7 hours doing housework every week, compared with women who fall in the richest 10<sup>th</sup> (Heisig 2011). This result demonstrates that gender inequalities associated with housework are exaggerated by economic inequalities. If one can afford to pay someone else to do their housework, one is then free to participate more in the market or spend the difference as leisure time if s/he desires. If a couple cannot afford to pay someone else, then they have to do it themselves. A couple's specific blend of housework and market work greatly affects their economic standing in relationship to the market and within their own relationship. Heisig (2011) reported that gender inequalities are "fundamentally conditioned" by economic inequalities, meaning that the two are inseparably linked, and that gendered housework greatly impacts and is impacted by income inequalities.

### *Household Economics*

Housework exaggerates economic inequalities that already exist between genders. The domestic division of labor has been linked to earnings inequalities as well as women's economic dependence on a spouse—or others (Budig and England 2001). This dependence has large penalty for women. Becker (1985) argued that responsibility for childcare, meal preparation, and other activities such as cooking and cleaning prevents women's earnings from rising at the same rate or even to the same amount as men's. His research suggested that time-inflexible and repetitive tasks are tiring and limit women's access to jobs that require travel or loosely scheduled hours. Many problems are likely to arise if one spouse is economically dependent on the other, and in extreme situations, a spouse is less likely to end an unhappy or even abusive partnership if they are economically dependent on their partner. Hartmann, (1993: 384) suggested that housework perpetuates women's oppression, by calling housework a “gender-based inequity that prevents women from exercising their full capacities.”

### *Well-Being*

Previous studies have shown that the division of household labor is highly related to relationship satisfaction, mental health, and quality of life (Coltrane 2000, Kluwer, 2000). Specifically, housework that is characterized by “low schedule control” (e.g. the female-typed repetitive and time-inflexible tasks) is linked to psychological distress even when controlling for age, gender, education, occupation, number of children, preschool children, gender role ideology, marital role quality, and total number of hours in paid employment (Barnett and Shen 1997). Because women do a disproportionate amount of these “low schedule control” tasks, the psychological distress falls excessively on them.

Coltrane (2000) suggests that first and foremost, men need to participate more equally in the female-typed routine and repetitive chores in order to relieve this burden on women, which will then contribute to women's sense of fairness and lower women's chances of being depressed or distressed.

### Theoretical Framework

Couples negotiate who does what housework depending on economic, time, and social factors. There are several competing perspectives for how couples divide housework: relative resources, gender role ideology, time availability and economic dependency (Coltrane and Ishii-Kuntz 1992, Greenstein 1996). Although none of these perspectives fully explain how housework is divided, each one does offer a piece of the explanation of who does what housework in a relationship, and why. The four perspectives are discussed below.

#### *Time Availability*

The time availability perspective assumes that the division of labor is rationally divided (Coverman 1985), as it examines how a partner's time is divided between paid market work and unpaid housework. Time availability perspective suggests that if women and men do the same time amount of paid work outside of the home, they would do equal time amounts of unpaid housework, regardless of whether they are compensated equally for their paid market work. This perspective focuses solely on time amounts, not income. This would suggest that if a partner is unemployed, they would do a far larger share of the housework because they have a greater amount of time that they are available to do housework due to their unemployment. Kamo (1988) showed that a husband's share in housework was reduced if he worked full-time and increased if he worked part-time, also,



his share of housework increased if his wife worked full-time and it was reduced if she worked part-time. This falls along the parameters of the time availability perspective. Finally, Bianchi and colleagues (2000) found significant support for the time availability perspective, using market employment hours and number of children to predict unpaid labor time; the more hours a wife worked, the less housework she did, and the more housework her husband did.

#### *Relative Resources Perspective*

The relative resources perspective suggests that partners negotiate who does what household task depending on how much they work and earn outside of the home, along with what tasks they are able to specialize in. This perspective deals with inputs and outcomes, not only income, but power and task specialization as well. Here, the difference between partner's income resources/power explains the differences between men's and women's housework. Within the relative resources perspective, men perform a smaller amount of female-typed housework because their resources (e.g. income and education) are typically greater than their wives' resources (Blood and Wolfe 1960). In terms of unpaid work, the partner who brings more resources into the home can exchange these resources for doing less housework. Partners who have more paid work bring resources to exchange for a lower participation in undesirable housework. (McFarlane Beaujot and Haddad, 1998). The relative resources perspective is a reflection more of the power relations between men and women, rather than strictly economic relations. Bianchi et al. (2000) showed that the greater portion of household income that the wife earns, the less housework she does. The same study showed that wives who are two or more years younger than their husbands do more housework than wives who are the same age as

their husbands (Bianchi et al. 2000), suggesting that age is a powerful factor equalizing in the relative resources explanation.

Recently, the time availability and the relative resources perspectives have been strongly criticized by feminists, who say that housework division is determined by much more than time availability, power and rational decision making (Bianchi et al. 2000). Gender scholars believe that gender operates at multiple levels in housework negotiation, so a gender-neutral bargaining theory like relative resources is inadequate (Wilkie, Ferree and Ratcliff 1998). These critiques have led to the development and testing of a new perspective, one that takes into account gender ideologies.

#### *Gender Ideology Perspective*

This perspective suggests that housework is split up depending on the gender ideology of the couple. Gender ideology is how someone identifies themselves with regard to traditional marriage/family roles that have been historically linked to gender. Couples with more traditional gender and marriage ideologies will have women do more housework, because traditionally, women were homemakers and stayed at home to raise children. Couples with less traditional ideologies will have a more equal division of labor (Greenstein 1996). Most households have some sort of gender role ideology blend, with women and men performing some typically gendered tasks. This perspective suggests that the division of housework is more of a symbolic expression of gender, rather than strictly and rationally decided by time and resources. Coverman (1985) discussed how gender ideologies are formed through socialization during childhood, while West and Zimmerman (1987) focused on how gender ideologies are part of “doing gender” (suggesting that housework is a way that people enact gender).

This perspective has held up well in research. South and Spitze (1994) suggest that housework is very much determined by gender ideologies—their study found that women and men in marital households, compared with other household types, have the greatest housework gap, indicating that the roles of “wife” and “husband” carry a lot of power. Published in the same year, Brines (1994) found that as husbands become more economically dependent on their wives, they actually do less housework. Brines (1994) argued that this was most likely because the husband was trying to reassert his masculinity. Greenstein (1996b) reminded researchers that gender ideologies vary greatly, and that not all follow traditional patterns; egalitarian beliefs about gender roles will be reflected in a more equal division of labor in the home. However, Shelton and John’s (1996) study suggested that husbands’ gender ideologies tend to overpower their wife’s ideology—when the two conflict, it is more often the husband’s ideology that wins out.

Whether tasks are divided equally or not, wives can also be reluctant to give up control of certain “core” household tasks, whether they want to or not. We can explain this reluctance using the gender perspective as well, because traditionally a clean house is more likely to be seen as a reflection of the wife, but not of the husband. Allen and Hawkins, (1999) suggest that women seem to hold higher standards for household cleanliness because of these traditional expectations of the wife—the house is traditionally a sign of her competence as a wife. Bianchi et al. (2000) discussed the importance of the gender ideology perspective, but noted that it is much harder to find a valid and reliable measure for someone’s gender ideology, as opposed to the measures used to examine other aspects like time availability.

### *Economic Exchange and Dependency*

The economic dependency model suggests that housework is women's work because women are more likely (and have been historically more likely) to be financially dependent on their husbands than their husbands are on them (Greenstein 2000). This perspective suggests that even if a woman spends more hours doing paid work outside of the home, if she still earns less than her husband she will be responsible for completing more housework. Brines (1994) suggested that housework is still seen as "women's work" because women are more likely to be economically dependent on their husbands. Brines' (1994) extensive study on economic dependency found that the link between housework and economics in marriage—on average—definitely complies with the economic dependency perspective. The economic dependency model is better at predicting women's housework proportion than men's. This perspective has drawn fewer criticisms from feminists, because a strictly economic explanation arguing that "whoever earns less money makes up for it/evens it out by doing more housework" is a more gender-neutral explanation than other perspectives, despite the wage gap that persists between men and women. Brines (1994) economic dependency study also showed that the patterns of adherence to the economic dependency model varied slightly between husband and wife, suggesting that in extreme cases, men "exaggerated" their masculinity by doing less housework the more and more dependent they were on their wife; Brines explained this difference by suggesting that couples who differ from the traditional "breadwinner husband/dependent wife" resort to having more traditional divisions of housework.

## Research Questions

In this study, I address the following research questions:

**Among married people, do women spend more time than men overall doing laundry?**

Rationale: This is to test if laundry is a female-typed task within a couple (Bianchi, et al. 2012, Brayfield 1992, Gupta et al 2009, Schneider 2012). Research shows that gender ideologies are formed through socialization (Coverman 1985). South and Spitze (1994) found that women and men in marital households, compared with other household types, have the greatest housework gap.

**Do married people who do laundry outside of the home spend significantly more time doing laundry?**

Rationale: When you do laundry in your home, you do not have to sit and wait in one place until it is done. You can multitask and do other things around the house. When you leave the home to do laundry, you give up some (if not most) of this multitasking ability as it relates to household tasks. Because laundry has been previously identified in the literature as a female-typed task (Bianchi et al. 2000, Gupta et al. 2009) as well as one of the top five most time-consuming household tasks (Blair and Lichter 1991, Robinson and Godbey 1997), people who do it outside of the home may spend more time on it even before accounting for travel time, which this study does not address.

**How are key indicators of socioeconomic status – earnings and employment status – associated with doing laundry outside the home?**

Rationale: Earnings have the ability to not only influence where you live, but whether or not you can afford a washer or dryer at all. As previously mentioned, housework

exaggerates economic inequalities that already exist between genders and the domestic division of labor has been linked to earnings inequalities as well as women's economic dependence on a spouse—or others (Budig and England 2001).

A similar argument can be made for employment status. The time availability perspective says that if women and men do the same time amount of paid work outside of the home, they would do equal time amounts of unpaid housework. Research suggests that if a partner is unemployed, they do more housework because they have a greater amount of time that they are available to do housework due to unemployment (Bianchi et al. 2000, Kamo 1988). As a result, I expect that those with lower earnings and who are not employed are more likely to do more laundry outside of the home.

**Is there a significant interaction among gender and earnings for time spent doing laundry?**

Rationale: Gender and earnings have varying effects on who does laundry and where they do it. I will test to see if gender and earnings interact to have a moderating effect on minutes of laundry. Examining the rationale for earnings, I found that the prior research on earnings and housework still had potential to be heavily impacted by gender. Budig and England (2001) studied how the domestic division of labor has been linked to earnings inequalities as well as women's economic dependence on a spouse. Becker (1985) suggested that women's responsibility for making meals, taking care of children, and cleaning the house prohibits their market earnings from rising at the same rate or even to the same amount as men's, suggesting that there may be an interaction between gender and earnings.

## CHAPTER II

### METHODS

#### Data

The American Time Use Survey (ATUS) first began collecting data in January 2003, and continues through present day. It is a study conducted and sponsored by the Bureau of Labor statistics and the U.S. Census Bureau. The ATUS study sample is taken from another nationally representative study, the Current Population Survey (CPS) sample. To accurately describe the ATUS sample, the CPS sample must be described.

The Current Population Survey collects labor force statistics for the United States. The sample is designed to capture national and state estimates of labor force characteristics. It uses a multistage, stratified probability-selected sample of 72,000 households from 824 sample areas in the United States, and each state's sample is tailored to the demographic and labor force conditions of that state. The CPS uses households sampled from the 2000 Decennial Census of Population and Housing, and has been updated to include newly built housing. The first sampling stage divides the US into metropolitan/large county/smaller grouped counties that reside within one state, called Primary Sampling Units (PSUs). They are then grouped based on Decennial Census demographic data. Then one unit is selected from each stratum. In the second stage, a sample of housing units within the PSU is taken based on demographic compositions of the housing units. Participants are 15 years of age or older, and are not sampled if they are in the Armed Forces, prison, long-term care hospitals, or nursing

homes. One person is interviewed for each household, and it is usually the person who owns or rents the housing unit. Respondents are interviewed using personal and telephone interviews, and asked questions about their employment, unpaid work, the labor force, income, school enrolment, and job tenure, among other labor force and employment questions.

Questions are designed to capture the work and demographic characteristics of the US population. Household respondents are interviewed for four consecutive months, waitlisted for eight months, and then interviewed again for four consecutive months. Interviews among participants are staggered so that there is information being gathered even during another household's wait period. Two months after a respondent has completed their eighth interview, they are then eligible for participation in the American Time Use Survey.

The ATUS sample has a three stage stratified sample. Because the CPS oversamples in less-populous areas of the US, the ATUS reduces the oversampling. In the second stage, households are divided based on race/ethnicity of primary respondent, presence and ages of children in the household, and the number of adults who reside in an adults-only household. The ATUS oversamples Hispanic and black households to improve reliability for these demographic groups. Households with children are also oversampled, and households without children are under-sampled. Unlike the CPS, where the respondent is most often the person who rents or owns the housing unit, any person over the age of 15 in the household has the same probability of being selected as the respondent for ATUS.



The goal of the American Time Use Survey is to measure how people divide their time doing different life activities. The ATUS sample is randomly selected from the households that have completed their 8<sup>th</sup> (and last) interview for the CPS. A letter is sent out to all ATUS selected respondents to explain the survey and tell the designated person which day they will be interviewed. Respondents are only interviewed once about how they spent their time the previous day. The survey asks questions about what they did, who they were with, and where they were at when the activity was completed. The data are collected using computer-assisted telephone interviewing, which offers many benefits over traditional interviews because the computer system offers prompts for the interviewer and minimizes human error. 50 percent of the sample is interviewed about weekdays, and the remaining 50 percent is interviewed about Saturday and Sunday. Five percent of the ATUS sample does not have a telephone number listed. It is either blank, or a string of impossible numbers. These households receive a letter that instructs them to call a number to complete the survey. These mailers include an inactivated \$40 debit card that can only be activated by a PIN that is provided by the interviewer once the call is completed. The ATUS interview can be completed in English or Spanish. The response rate for the initial year was 57.8 percent, and was 51.0 percent in 2014. An additional survey conducted by the Bureau of Labor Statistics and the Census Bureau analyzed response rates, and found that the primary reason for refusal to participate is survey fatigue. This fatigue is especially prevalent in ATUS because their sample is taken from the CPS sample that has already completed eight interviews (US Census Bureau, 2015). Full IRB approval from the University of Akron was granted for this study.

For the purpose of this study and consistent with prior research (Bianchi, et al. 2012), the sample was restricted to married respondents ages 25-64. Marital status affects housework hours with differing outcomes for men and women. Married women spend more time on housework than women who aren't married and spend more time doing housework than married men, even when they both have paid jobs (Bianchi 2000:197), In recent decades, married women continue to do more of the core housework, while men report traveling to stores, shopping, cooking, and doing repairs (Goldscheider & Waite 1991, Shelton 1992).

The data used for this analysis were collected from 2003-2013. The 10 survey years are combined in the multivariate analysis. This age restriction was used because it would exclude young people (possibility living in college dorms or apartment housing) who are not the focus of my study, and reduce the possibility of capturing retired respondents, who would have atypical earnings, employment and time availability in comparison to the sample that is my focus. One particular strength of the ATUS data is that it combines survey responses of paid work, employment, and income from CPS with the time use diary data from the ATUS. Previous research has highlighted the advantages of combining survey and time diary research, stating that survey responses reflect perceptions of work, and time diaries offer more reliable time use reports (Lee and Waite 2005, Press and Townsley 1998, Robinson and Godbey 1997). If anything, respondents logging time diaries tend to underreport the time they spend on tasks because respondents underestimate small times worked and overestimate large numbers of hours, like paid work (Bonke 2005).

## The Study Samples

The original ATUS sample for this study had 105,101 total observations. Of those observations, 63,199 people were married and between the ages of 25-64 (54,908 once controls were added). Of those respondents, 41,521 (75.6 %) reported no laundry minutes on the diary day. Slightly more than 1 in 5 respondents (24.4%; n=13,387) did some laundry on the diary day. Among those who did laundry, 13,076 did it inside the home and 311 did it outside of the home. In total, on the diary day surveyed, 23.8 percent of the total sample did laundry inside the home and .57 percent did it outside of the home). Two samples were taken from the ATUS data and analyzed separately for this study. Figure 1 shows how the two study samples were drawn from the original sample. The descriptive statistics for sample one are in Table 2, and sample two statistics are in Table 5.

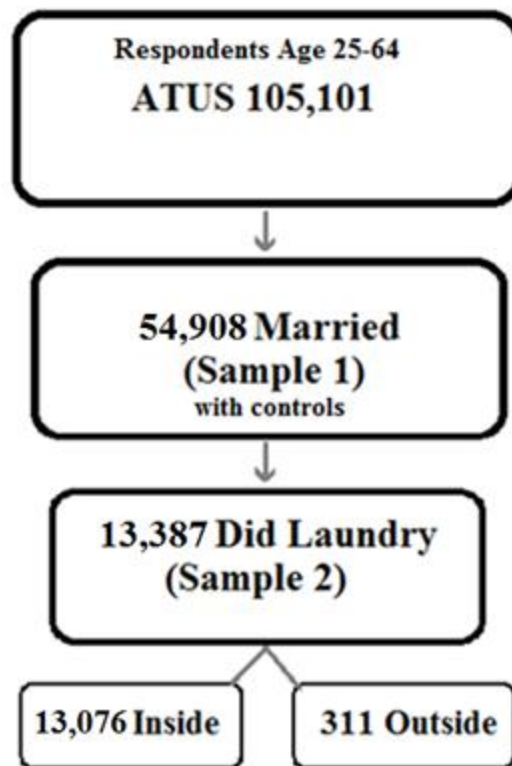


Figure 1: Study Samples

## Independent Variables

Each of the following independent variables is included as a focus in one or more of my models. *Gender*: I coded the gender dichotomous variable to distinguish between men (female=0) and women (female=1); 51 percent of the sample 1 (S1) were women, while 81percent of sample two (S2) were women. *Income*: Household earnings is a composite variable. Respondents were asked to report their own weekly earnings, and the weekly earnings of their spouse. I added these together and multiplied the sum by 52 to create a continuous household earnings variable. For ease of interpretation, I report it in 10,000s. Average family earnings are approximately \$64,000 for S1, \$60,600 for S2. It is quite possible this variable was overestimated due to how it was created, because it was created assuming weekly reported earnings was average for a year. *Employment*- This dichotomous variable was coded with 1=employed, 0=unemployed; 77 percent of S1 was employed, while 69 percent of S2 was employed.

Table 2: Descriptive Statistics for Sample 1\*

<b>Independent Variables</b>	<b>All</b>		
	Mean	SE	Range
Female (1=female)	0.51	0.003	0-1
Household Income (In 10,000s)	6.4	0.026	0-30
Employed (1=yes)	0.77	0.002	0-1
Education Level	11.77	0.017	
Live in House/Apt/Flat (1=yes)	0.96	0.002	0-1
White (1=yes)	0.86	0.002	0-1
Marital Power	0.52	0.002	0-1
# of Children Living in House <18yrs	1.06	0.006	0-4+
Age	44.94	0.06	25-64
<b>Sample</b>		—	—
N	54,908	—	—

\*Sample 1 includes all married respondents, age 25-64, whether they did or did not do laundry on the study day.

## Control Variables

The following variables were included as controls.

*Race:* the race variable “white” was dummy coded 1=yes, and other race=0; 86 percent of S1 is white, while 84 percent of S2 was white.

*Education:* Level of education is included as a categorical variable with a mean value of 11.77 for S1, 11.4 for S2. This corresponds to the categories one through seventeen, with 1=less than 1st grade, 2=1st - 4th grade, 3=5th or 6th grade, 4= 7th or 8th grade, 5= 9th grade, 6=10th grade, 7=11th grade, 8=12th grade - no diploma, 9=High school graduate – GED, 10= High school graduate – diploma, 11=Some college but no degree, 12= Associate degree - occupational vocation, 13=Associate degree - academic program, 14=Bachelor's degree (BA, AB, BS, etc.), 15=Master's degree (MA, MS, MEng, MEd, MSW), 16=Professional school degree (MD, DDS, DV), 17= Doctoral degree (PhD, EdD, etc.)

*Housing Type:* A dichotomous housing type variable was included to control for whether the respondent lives in a house/apartment/flat, with all other housing as a variable for the omitted category in this measure. The omitted category for this variable included respondents who rented or occupied housing without rent; 96 percent of both samples reported that they live in a house, apartment, or flat.

*Age:* Respondent's age was reported as a continuous variable ranging from 25-64. The average respondent in S1 was 44.94 years old, and 44.47 for S2.

*Household Number of children:* This variable corresponded to the number of children under the age of 18 living in the household. It is continuous control variable that was top coded at four or more children to prevent the skew of outliers. The average

household in S1 had 1.06 children under 18 living at home, and S2 had an average of 1.02 children.

*Marital Power:* This marital power measure was created by taking the respondent's earnings and dividing it by the sum of their and their partner's earnings. It is a continuous variable with a mean of .52 for S1 and .57 for S2.<sup>1</sup>

*Female\*Income:* Because one of my research questions focuses on testing for differences in laundry by class and gender, I created an interaction term of Female X Income, (household earnings).

### Analysis Strategy

As indicated above, I have four major research questions, focusing on gender differences in doing laundry and in doing laundry outside of the home, on socioeconomic factors shaping who does laundry and on whether the impact of earnings on doing laundry differs for men and women. Because more than 75 percent of the sample did not do any laundry on the study day, I will address these research questions in a series of steps, using two different samples: Sample 1 (N=54,908), which includes all married respondents ages 25-64 whether they did any laundry or not, and Sample 2 which is restricted to the 13,387 respondents who did laundry on the study day.

The dependent variable of interest—minutes spent on laundry—is measured in four different ways. The first two draw on Sample 1: (1) a dichotomous variable (“Any Laundry”) indicating whether one did any laundry (=1) or not (=0); (2) a continuous variable of time spent on laundry (“Any Laundry – Minutes”) that ranges from a low of 0 minutes to a high a of 725 minutes. As noted above, because roughly 24 percent of the

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<sup>1</sup> In order to create this variable, I assigned a value of .000001 as the earnings for those respondents who reported no earnings.

sample did any laundry, in order to provide a more sensitive test of my research questions, I conducted a second set of analyses, this time restricted to respondents who did do laundry on the study day (Sample 2). These analyses relied on two more measures of laundry: minutes of laundry – “Laundry Minutes” – (ranging from 1 through 725; n=13076) and minutes of outside laundry – “Outside Laundry Minutes” – (ranging from 1 through 562; n=311). Additionally, a dichotomous variable for whether the respondent did laundry inside (1=yes, 0=no) was included in one analysis to restrict the “Laundry Minutes” variable to inside laundry only.

Not surprisingly, all three continuous variables of laundry minutes were significantly skewed right. Because of significant right positive skew, all three variables were transformed into natural logs. Figures 2 - 4 show the histograms of the variables before and after transformation.

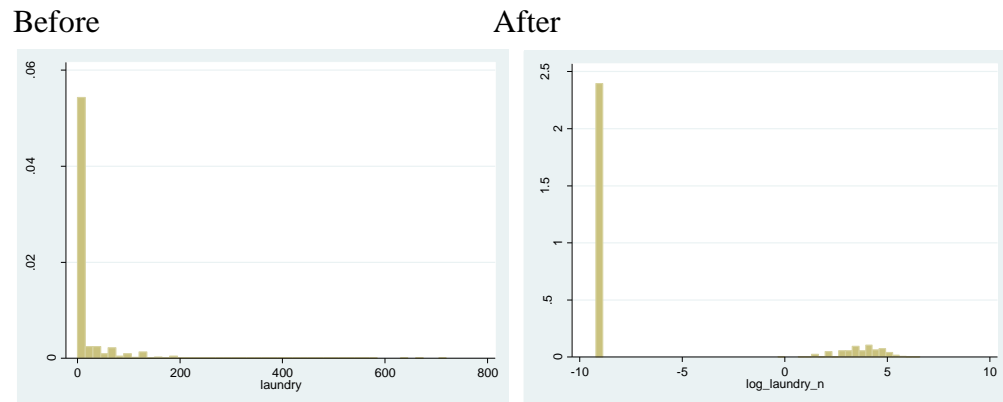
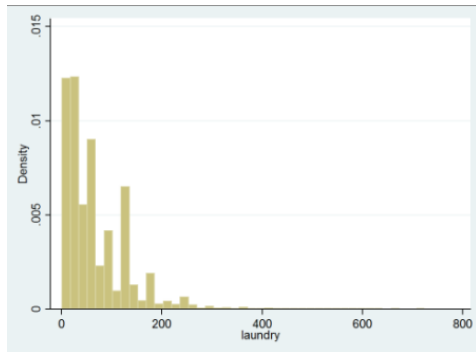


Figure 2: Total Variable Log Transformation

Before



After

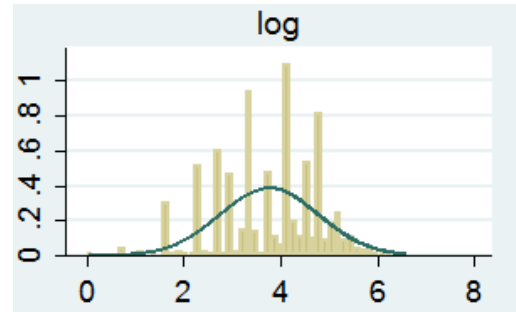
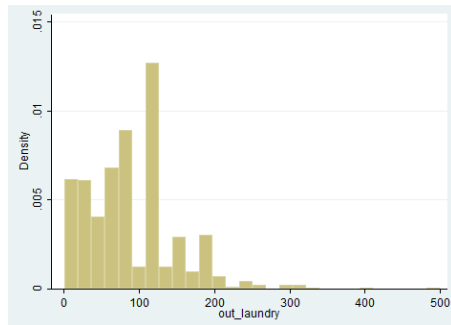


Figure 3: Laundry minutes (All)

Before



After

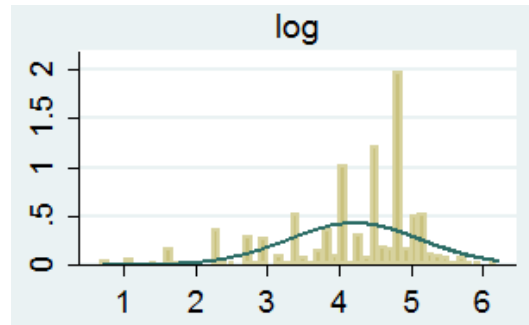


Figure 4: Outside Laundry Minutes

## Predictions

I will rely on ordinary least squares regression to test my hypotheses, except for the dichotomous measure of laundry, where I will use logistic regression. Note again that the tests were restricted to married respondents only, ranging in age from 25-64. STATA<sup>®</sup> statistical software was used for the analysis. The data used an ATUS constructed weight adjustment factor for respondent probability. My predictions are as follows:

**(H1) Women will be more likely to do laundry than men** (tested with Sample 1, with logistic regression).

“Any laundry” (dichotomous variable)= $a+b_1(\text{female})+\sum b_2-k[\text{controls}]$ . Prediction:  $b_1$  will be positive and significant



To check for all possibilities, I will repeat this model for dependent variables that distinguish between doing “any laundry or not”, “any inside laundry or not” and “any outside laundry or not.”

**(H1a) Women will spend more time overall doing laundry than men** (tested with Sample 1, with OLS).

Logged “Any Laundry – Minutes” =  $a + b_1(\text{female}) + \sum b_2 \dots k[\text{controls}]$ . Prediction:  $b_1$  will be positive and significant

**(H1b) Of the people who did laundry, women will spend more time doing laundry than men** (tested with Sample 2, with OLS).

Logged “Laundry – Minutes” =  $a + b_1(\text{female}) + \sum b_2 \dots k[\text{controls}]$ . Prediction:  $b_1$  will be positive and significant

**(H2) Of the people who did laundry, people who do it outside of the home will spend significantly more time doing it than people who do it in their home** (tested with Sample 2, OLS).

Mean of log minutes of inside laundry < Mean of log minutes outside laundry.

Relationship will be true and significant.

➔ **(H2a) Of the people who did outside laundry, women will spend more time doing it than men.**

Logged minutes of outside laundry =  $a + b_1(\text{female}) + \sum b_3 \dots k[\text{controls}]$ . Prediction:  $b_1$  will be positive and significant.

➔ **(H2b) Household earnings will be negatively associated with outside laundry minutes among people who did outside laundry on the diary day.**

Logged outside laundry minutes =  $a + b_1(\text{household earnings}) + \sum b_2 - k[\text{controls}]$ .

Prediction:  $b_1$  will be negative and significant.

➔ **(H2c) Being employed will be negatively associated with outside laundry minutes among people who did laundry on the diary day.**

Logged outside laundry minutes =  $a + b_1(\text{employed}) + \sum b_2 - k[\text{controls}]$ . Prediction:  $b_1$  will be negative and significant.

**(H3) There will be a significant interaction among gender and household earnings for inside laundry minutes among people who did laundry on the diary day** (tested with Sample 2, OLS).

Logged minutes of inside laundry =  $a + b_1(\text{gender}) + b_2(\text{household earnings}) + b_3(b_1 \text{gender} * b_2 \text{household earnings}) + \sum b_4 - k[\text{controls}]$  Prediction:  $b_3$  will be positive and significant.

➔ **(H3a) There will be a significant interaction among gender and household earnings for outside laundry minutes among people who did laundry on the diary day.**

Logged minutes of outside laundry =  $a + b_1(\text{gender}) + b_2(\text{household earnings}) + b_3(b_1 \text{gender} * b_2 \text{household earnings}) + \sum b_4 - k[\text{controls}]$  Prediction:  $b_3$  will be positive and significant.

## CHAPTER III

### RESULTS

My first hypothesis (H1) focuses on who is more likely to do any laundry, men or women. The results for the logistic regression equations that test this are located in Table 3. For Model A, the dependent variable is a dichotomous variable where 1 corresponds to the respondent doing any laundry on the diary day. For inside laundry minutes this means that for females, I expect a 1.92 increase in the log-odds of doing any laundry, holding all other independent variables constant. Living in a house/apartment/flat, being white, having a higher education, and being older all have positive and significant log odds associated with doing any laundry. Marital power had negative and significant log odds associated with doing any laundry, while household earnings and employment were not statistically significant.

Next, I move to examine the laundry differences among people who do it inside versus outside or not at all. For this analysis, the dependent variable is a dummy variable corresponding to the entire sample, with 1 representing whether the respondent did any inside laundry on the diary day. The results of this analysis are seen in Table 3, Model B. For inside laundry minutes this means that for women, I expect a 1.95 increase in the log-odds of doing laundry inside, holding all other independent variables constant. Living in a house/apartment/flat, being white, having a higher education, and being older all have positive and significant log odds associated with doing laundry inside the home. Marital

power had negative and significant log odds associated with doing inside laundry, while family earnings and employment were not statistically significant.

Lastly, I examine the laundry differences among people who do it outside versus inside or not at all. These results are listed in Table 3, Model C. For this analysis, the dependent variable is a dummy variable corresponding to the entire sample, with 1 representing whether the respondent did any outside laundry.

For outside laundry minutes this shows that women have a .55 increase in the log-odds of doing laundry over men, holding all other independent variables constant. Female was the *only* positive and significant variable on this model. Household earnings, employment, and age all had negative and significant log odds associated with doing laundry outside of the home. Living in a house/apartment/flat, number of children, being white, and marital power were all insignificant on this analysis.

Table 3 Logistic Regression of Laundry: All, Inside, and Outside Log-Odds for Married Respondents Age 25-64						
	Model A		Model B		Model C	
	All Laundry	SE	Inside Laundry	SE	Outside Laundry	SE
Female (1=female)	1.92 ***	0.0288	1.95 ***	0.029	0.552 ***	0.138
Live in House/Apt/Flat (1=yes)	0.187 **	0.065	0.199 **	0.066	-0.0357	0.263
# of Children Living in House <18yrs	0.154 ***	0.011	0.158 ***	0.011	-0.092	0.0586
White (1=yes)	0.259 ***	0.034	0.26 ***	0.034	-0.262	0.167
Education Level	0.016 ***	0.0039	0.019 ***	0.0039	-0.134 ***	0.0187
Household Income	0.002	0.0026	0.0033	0.0026	-0.0862 ***	0.0203
Marital Power	-0.286 ***	0.041	-0.3 ***	0.041	0.321	0.234
Employed (1=yes)	-0.065	0.036	-0.0545	0.036	-0.475 *	0.213
Age	0.014 ***	0.014	0.014 ***	0.0013	-0.0156 *	0.0068
Constant	-3.82 ***	0.108	-3.95 ***	0.109	-2.364	0.491
R^2	12.70%	—	12.90%	—	5.07%	—
Observations (N)	54908	—	54908	—	54908	—
* =p<.05 , ** =p<.01, *** =p<.001						

Thus, there is a great deal of support for Hypothesis **H1**: women are much more likely than men to do any laundry at all, laundry inside the home, and laundry outside the home. The next set of analyses, also using Sample 1, builds on these results and examines the amount of time that respondents spend on laundry (**H1a**). Recall that this includes the entire sample of married respondents, ages 25-64, and that almost 80 percent reported doing no laundry on the study day. These results, shown in Table 4, indicate that women spend more time on laundry than men do. The coefficient “female” is positive and significant. Overall, women do 3.23 log minutes of laundry more than men, or women do 25 times as much laundry as men.

Table 4 OLS Regression of All Logged Laundry Responses  
for Married Respondents Age 25-64

	All Laundry		SE
Female (1=female)	3.23 ***		0.054
Live in House/Apt/Flat (1=yes)	0.191 ***		0.143
# of Children Living in House <18yrs	0.31 ***		0.0234
White (1=yes)	0.392 ***		0.073
Education Level	0.0008		0.0084
Household Earnings	-0.0028		0.00557
Marital Power	-0.575 ***		0.0846
Employed (1=yes)	-0.5561 ***		0.101
Age	0.0213 ***		0.0027
Constant	-9.46 ***		0.236
R <sup>2</sup>	12.27%	—	—
Observations (N)	54908	—	—

\*=p<.05 , \*\*=p<.01, \*\*\*=p<.001

To summarize, the previous analyses have shown that of all married respondents aged 25-64, women do more laundry than men overall, when it is done inside the home, and when it is done outside the home.

As indicated above, because a relatively small share of the sample did any laundry, the remaining analyses focus only on those respondents who did laundry: Sample 2, the sample that consists only of people who reported doing more than zero minutes of laundry on the diary day. The descriptive statistics for Sample 2 are shown in Table 5, with pre- and post- imputation values. Missing data was assumed to be missing at random, and chained equation multiple imputation was used to impute the missing values. No variable had more than 11.2 percent missing, although there is no limit in the multiple imputation literature for an acceptable percentage of missing data (Dong & Peng 2013). The observed variable distributions were similar to the imputed variable distributions, and the pre-imputation means also are shown in Table 5.

I had three major hypotheses for the analysis of Sample 2, and the results testing each of them are listed in Table 6; “Model 1” contains the results that test hypothesis 1b, “Model 2” contains the results for hypotheses H2a-H2c, “Model 3” contains the results for hypothesis 3, and “Model 3a” contains the results for hypothesis 3a.

**(H1b) Of the people who did laundry, women will spend more time overall doing it.**

Logged minutes of all laundry= $a+b_1(\text{female})+\sum b_2-k[\text{controls}]$ . Prediction:  $b_1$  will be positive and significant. Result:  $b_1$  is positive and significant. Based on the results in model 1, married women do .152 log minutes of laundry more than married men.

Although this is statistically significant, it is easier to assess the magnitude of this effect

by calculating the percent difference for the log coefficients. This calculation is  $e^{\log$

coefficient =X, where X = percent as many minutes as the reference group. When the

number exceeded 100 percent—in the case of variables that corresponded to relationships where respondents did more laundry than the reference group— I subtracted 100 from the

amount to report it as a percent increase in minutes. Where numbers were less than 100 percent, indicating that the variable reported doing less laundry than the reference group, I subtracted X from 100 to report it as a percent decrease in minutes.

In this case, my results indicate that of people who did laundry on the diary day, married women did 16.4 percent more laundry than married men, with all other variables held constant. These results are consistent with prior research and the Sample 1 analysis that shows laundry is a female-typed task. This model also shows that households with children under 18 do significantly more laundry than households without children under 18, specifically .038 log minutes more, or 3.9 percent more laundry minutes for each additional child. The race variable showed that white respondents did .0936 fewer log minutes, or 9.8 percent fewer laundry minutes than non-whites. For each additional level of education, respondents are expected to do .0495 less log minutes, or 5.07 percent less laundry minutes. For each additional \$10,000 of household earnings per year, respondents are expected to do .0104 less log minutes, or 1.05 percent less laundry minutes. Employed respondents reported doing .104 log minutes fewer, or 1.04 percent fewer laundry minutes than their unemployed counterparts.

**(H2) Of the people who did laundry, people who do it outside of the home will spend significantly more time doing it than people who do it in their home.**

*Mean of log minutes of inside laundry < Mean of log minutes outside laundry.*

*Relationship will be true and significant.* This hypothesis was tested with a t-test. I tested the means of logged outside and logged inside laundry minutes against each other. The result showed that the means were statistically significantly different from each other ( $t=9.66$ ;  $p < 0.001$ ), showing that the mean of log minutes of outside laundry is larger than



the mean of log minutes of inside laundry. This result shows that among the people who do laundry inside and outside, people who do it outside spend more time doing it.

Table 5 Descriptive Statistics for Sample 2

Variable	All		Female		Male		Pre- Imputation
	Mean	SE	Mean	SE	Mean	SE	All Mean(SE)
<b>Dependent Variables</b>							
Log Minutes of All Laundry	3.69	0.0117	3.72	0.0123	3.53	0.034	3.69(0.117)
Log Minutes of Inside Laundry	3.67	0.0118	3.7	0.0124	3.48	0.035	3.69(.0117)
Log Minutes of Outside Laundry	4.21	0.073	4.17	0.094	4.28	0.107	4.2(.073)
<b>Independent Variables</b>							
Female (1=female)	0.81	0.004	—	—	—	—	.81(.004)
Household Earnings (In 10,000s)	6.06	0.052	5.88	0.056	6.8	0.126	6.404(.261)
Employed (1=yes)	0.69	0.004	0.67	0.005	0.798	0.01	.76(.0017)
Education Level	11.4	0.0259	11.37	0.029	11.51	0.06	11.62(.014)
<b>Control Variables</b>							
Live in House/Apt/Flat (1=yes)	0.96	0.002	0.95	0.002	0.96	0.004	0.96(.0009)
White (1=yes)	0.84	0.003	0.85	0.004	0.82	0.008	.82(.0016)
Marital Power	0.57	0.031	0.576	0.033	0.557	0.079	.52(.002)
# of Children	1.02	0.011	1.07	0.01	0.79	0.023	1.06(.006)
Living in House <18yrs	44.47	0.1	44.73	0.106	43.35	0.023	44.94(.055)
<b>Interactions</b>							
Interaction Female*HH Earnings	5.12	0.06	6.02	0.069	—	—	—

Table 6 OLS Regression of Logged Laundry Minutes for Married Respondents Age 25-64									
	Model 1		Model 2		Model 3		Model 3a		
	All Laundry	SE	Outside Laundry	SE	Inside Laundry	SE	Outside Laundry	SE	
Female (1=female)	0.152 ***	0.0357	-0.142	0.139	0.142 *	0.0599	-0.156	0.195	
Live in House/Apt/Flat (1=yes)	0.0217	0.0669	0.245	0.279	0.0189	0.0687	0.243	0.28	
# of Children Living in House <18yrs	0.0382 **	0.0116	0.086	0.0589	0.0376 **	0.0117	0.086	0.0589	
White (1=yes)	-0.0936 *	0.0369	-0.381 **	0.13	-0.069	0.0374	-0.38 **	0.13	
Education Level	-0.0495 ***	0.0045	-0.047 *	0.018	-0.0438 ***	0.0047	-0.047 **	0.018	
Household Earnings	-0.0104 **	0.0031	-0.033	0.0174	-0.0136 *	0.006	-0.0346	0.022	
Marital Power	0.0423	0.0358	0.0958	0.0692	0.041	0.0398	0.0957	0.068	
Employed (1=yes)	-0.104 *	0.0412	0.0963	0.167	-0.113 **	0.0429	0.0907	0.168	
Age	0.00044	0.0014	-0.0076	-0.0076	0.0011	0.0014	-0.0076	0.0077	
Interaction Female*HH Income	—	—	—	—	0.0051	0.006	0.00288	0.0269	
Constant	4.24 ***		5.07 ***		4.117 ***		5.09 ***	0.464	
R^2	4.58%		16.82%		4.06%		16.83%		
Observations (N)	13887		311		13076		311		
* = p < .05 , ** = p < .01, *** = p < .001									

**(H2a) Of the people who did outside laundry, women will spend more time doing it than men.**

Logged minutes of outside laundry= $a+b_1(\text{female}) + \sum b_3 - k$  [controls]. Prediction:  $b_1$  will be positive and significant. Result:  $b_1$  is negative and not statistically significant.

In this model (Table 6, Model 2), gender had no statistically significant ( $b=-.142$ ) impact on logged minutes of outside laundry.

**→(H2b) Household earnings will be negatively associated with laundry minutes among people who did outside laundry on the diary day.**

Logged outside laundry minutes=  $a+b_1(\text{household earnings})+ \sum b_2 - k$  [controls].

Prediction:  $b_1$  will be negative and significant. Result:  $b_1$  is negative and not significant.

The p-value was 0.056, which is just over the accepted limit for statistical significance.

This shows that household earnings are unrelated to the number of minutes of outside laundry, in both the full model (Table 6, Model 2) and net of gender, education, and employment.

**→ (H2c) Being employed will be negatively associated with outside laundry minutes among people who did laundry on the diary day.**

Logged outside laundry minutes= $a+b_1(\text{employed})+ \sum b_2 - k$  [controls]. Prediction:  $b_1$  will be negative and significant. Result:  $b_1$  was not statistically significant. Employment status was unrelated to the number of minutes of outside laundry, in both the full model (Table 6, Model 2) and net of gender, education and household earnings.

**(H3) There will be a significant interaction among gender and household earnings for laundry minutes among people who did inside laundry on the diary day.**

Logged minutes of inside laundry=  $a + b_1(\text{gender}) + b_2(\text{household earnings}) + b_3(b_1 \text{gender} * b_2 \text{household earnings}) + \Sigma b_4 - k[\text{controls}]$ . Prediction:  $b_3$  will be positive and significant. Result:  $b_3$  was not statistically significant. As indicated in Model 3 of Table 6, there is no statistically significant interaction among gender, household earnings and the amount of time one spends on inside laundry.

**→ (H3a) There will be a significant interaction among gender and household earnings for outside laundry minutes among people who did laundry on the diary day.**

Logged minutes of outside laundry=  $a + b_1(\text{gender}) + b_2(\text{household earnings}) + b_3(b_1 \text{gender} * b_2 \text{household earnings}) + \Sigma b_4 - k[\text{controls}]$  Prediction:  $b_3$  will be positive and significant.

Result:  $b_3$  was not statistically significant. As indicated in Model 3a of Table 6, there is no statistically significant interaction among gender, household earnings, and the amount of time one spends on outside laundry.

## CHAPTER IV

### DISCUSSION AND CONCLUSION

Overall, I found mixed support for my hypotheses. The analysis of Sample 1 showed that women do much more laundry than men, on average. On the single diary day reported, women did 3.23 log minutes of laundry more than men, or did 25 times as much laundry as men. This shows that laundry is still overwhelmingly a female-typed task. For inside laundry minutes I found a 1.95 increase in the log-odds of women doing laundry inside, holding all other independent variables constant. Also in this model, living in a house/apartment/flat, being white, having a higher education, and being older all have positive and significant log odds associated with doing laundry inside the home. Marital power had negative and significant log odds associated with doing inside laundry, while household earnings and employment were not statistically significant.

For outside laundry minutes, the Sample 1 analysis shows that women have a .55 increase in the log-odds of doing laundry over men, holding all other independent variables constant. However, female was the *only* positive and significant variable on this model. Marital power was not significant for outside laundry like it was for inside laundry, suggesting that marital power is a better housework bargaining tool for women who do laundry inside the home. The smaller increase in log-odds for outside minutes suggests that, while women still do more of the outside laundry, men are doing more outside laundry than they are doing inside laundry. Perhaps this is associated with male-typed tasks more since it requires leaving the home like other male-typed tasks.

Education was the only statistically significant variable in all models. In every model, an increase in unit of education corresponded to a decrease somewhat in laundry minutes, whether they were inside or outside. Since education is usually correlated positively with earnings and employment, it is not surprising to find that it was significant in all of the models. Although it did not greatly influence laundry, it still reduced laundry time by around 5.07 percent in certain models.

Household earnings were statistically significant in models 1 and 3, decreasing laundry minutes in both. The largest amount that it decreased any laundry was 1.4 percent of minutes in model 3. Future research should be mindful of earnings data collection, especially when it pertains to partners reporting each other's data. While self-reports of weekly earnings are not always accurate, there is perhaps less of a chance of accurately reporting someone else's weekly earnings than your own, which is what respondents were asked to do. However, earnings still had a negative relationship with laundry minutes. This finding shows support for Heisig's (2011) finding that poorer households do disproportionately more housework.

Employment status was statistically significant in decreasing laundry minutes by up to 12 percent in model 3, the inside laundry only model. However, it did not have a statistically significant impact on outside minutes of laundry only.

The race variable "white" was statistically significant in models 1, 2, and 3a, reducing laundry minutes by up to 46.4 percent (as seen in models 2 and 3a). Because these hypotheses dealt only with outside minutes of laundry, this finding suggests that non-whites do outside laundry at disproportionately higher rates when compared to

whites, and that outside laundry may be more raced than it is gendered. Further research is needed in this area, with particular attention paid outside laundry and race.

Overall, having a child under 18 in the house increased the time respondents spent on inside laundry models only, (hypotheses 1 and 3) up to 4 percent. This isn't particularly surprising because young children are less likely to do their own laundry than a household adult. The household children variable was not significant when testing outside minutes only.

The remaining control variables of age, housing type, and the marital power were not statistically significant in any model.

Putting all this together, although there is a body of literature on gendered housework, few studies focus on a specific task, and instead group them into male- and female-typed work. This study examined a particular type of female-typed task on which there is limited or no literature. Because female was only statistically significant on the all or inside laundry models, this suggests that men do more laundry outside the home than they do inside the home, although women still do more overall. My analysis of laundry outside of the home showed where a usually female-typed *indoor* task, meets the male dominated outside task. The results of this study suggest that perhaps it is not the laundry that is completely female-typed, but may depend more on *where* the laundry is done. Blair and Lichter (1991) stated that women perform qualitatively different types of housework than men. I argue that indoor/outdoor types are a bigger theme in the gender division than previously discussed. When laundry is done inside the home it is overwhelmingly done more by women, but findings are less clear when laundry is done outside the home. This study did not find that outside laundry is a task that exaggerates

the gender gap in household labor, because the results for gender were inconclusive and statistically insignificant in the outdoor only models. Future research and data collection should be mindful of laundry location and other factors associated with outside laundry such as travel time and specific. The inconclusive results on outside laundry do not necessarily mean that outside laundry does not contribute disproportionately to the gender gap, but that more research is necessary to come to a conclusion. Future data collection for the purpose of studying housework and laundry specifically may be necessary for a conclusive result to be reached.

The results show that inside laundry is still done disproportionately by women, consistent with prior literature (Bianchi et al. 2000, Gupta et al. 2009). I found that being employed and having higher levels of education and household earnings are negatively associated with all and indoor laundry minutes across several models, however employment did not play a statistically significant role when testing outside minutes of laundry only. One of the largest factors involved with leaving the home to do laundry is travel time. Because travel time was not included for people who reported doing laundry outside of the home, this study overall has conservative estimates of how long it actually takes to complete outside laundry from start to finish.

Lastly, these data were collected between 2003 and 2013. Homosexual marriages were not differentiated from heterosexual marriages within the data. If any gay partnerships were captured by the survey, they are expected to be fewer, especially since marriage equality wasn't legalized nationwide by the Supreme Court until 2015 (BBC 2015). Future research would benefit from exploring how partners negotiate housework, and by comparing gender, race, and class differences between gay and straight couples.



In conclusion, future studies should continue to explore outside laundry among people aged 25-64, paying particular attention to race, gender, and class, travel time, and where specifically outside the home laundry is done. It is important to understand how different people spend their time, and how some burdens fall unequally on people due to their gender, race, and class. It is also important to understand how income inequality, household economics, and gender ideology influence who does what housework.

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