Closing the Gender Gap at Home:

Job Characteristics and Household Labor

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ABSTRACT

Gender equality in the household continues to lag behind women's advancements in the labor market. While prior research has linked job characteristics to the persistent gender gap in household labor, few studies have considered these factors in combination or examined how their influence has changed over time. Using data from the 2003–2019 American Time Use Survey, this study analyzes four types of household tasks—female-typed housework, male-typed housework, care-based childcare, and interaction-based childcare—across two periods (2003–2010 and 2011–2019). It first assesses how job characteristics, including work hours, earnings, autonomy, irregular schedules, time pressure, and competition, are associated with time spent on household labor. It then evaluates how gender differences in these characteristics contribute to the unequal division of household labor, distinguishing between compositional differences and behavioral responses. Results from OLS regression show that weekly work hours are significantly associated with all types of household labor, while weekly earnings are linked only to female-typed housework. Some job characteristics, such as time pressure and autonomy, have begun to influence household labor recently. Findings from the Blinder–Oaxaca decomposition indicate that gender differences in job characteristics explain a smaller share of the gender gap than behavioral responses. Among compositional factors, differences in weekly work hours are the most influential, highlighting the need to address long working hours. The behavioral results further suggest that men's responses to work constraints may reflect shifting gender norms.

INTRODUCTION

Gender equality has improved significantly over the decades, but progress has been uneven. While women's employment rates have risen, deeply ingrained gender roles within families persist. Women continue to shoulder the majority of household labor—albeit to a declining extent—while men's involvement remains limited (Bianchi et al., 2000; Chao, 2022; England, 2010; Sullivan et al., 2018). Since the 1990s, progress toward a more equitable division of household labor between

men and women has stalled or proceeded slowly (England et al. 2020; Goldscheider et al. 2015). To achieve a gender-equal society, scholars have emphasized the importance of adopting new norms across social institutions, such as the workplace, and promoting the diffusion of gender-egalitarian values (Esping-Andersen & Billari, 2015).

With regard to the first requirement — the adoption of new norms across social institutions — widely adopted *time availability* and *resource–power* perspectives on gender inequalities in household labor align with this emphasis on the role of social institutions. The *time availability* perspective argues that individuals' time spent in paid work determines their availability to perform housework (Coverman, 1985; England & Farkas, 1986; Gough & Killewald, 2011). It suggests that men's longer work hours limit their availability for housework. The *resource–power* perspective contends that individuals with more economic resources have greater bargaining power to avoid unpleasant household tasks (Blood & Wolfe, 1960; Brines, 1994; Lundberg & Pollak, 1996). It implies that men's economic advantage gives them greater leverage to negotiate out of doing housework. In fact, both perspectives involve job demands and the resources individuals obtain in the workplace (Bakker & Demerouti, 2007; Demerouti et al., 2001; Voydanoff, 2004). The unequal distribution of job demands and resources shapes and constrains gendered arrangements of household labor (Cha, 2010; Pedulla & Thébaud, 2015; Shows & Gerstel, 2009; Syrda, 2023). Work hours and earnings are typically the two most commonly used measures when applying these perspectives (Bianchi et al., 2000). However, as work conditions and environments have become more complex, many studies have expanded the discussion to include time-related job characteristics such as nonstandard work schedules (Hewitt et al., 2012; Presser, 2003; Zilanawala & McMunn, 2023), job autonomy (Osiewalska & Matysiak, 2025; Guo & Wang, 2025), and workplace or worktime flexibility (Augustine et al., 2024; Chung & Booker, 2023; Kuang et al., 2025; Wang & Cheng, 2024). Given that families today face a time squeeze due to dual commitments to work and family (Hays, 1998; Altintas, 2016; Jacobs & Gerson, 2004), these discussions provide an alternative perspective beyond the traditional focus on work hours and earnings by exploring new possibilities for reorganizing work and family life. Although research has examined various aspects of job characteristics, few studies have considered these workplace factors together to explore how they shape nonwork life (e.g., Schieman et al., 2009), contribute to gender inequality in household labor (e.g., Hook et al., 2022), or how their roles have changed over time.

Addressing the second requirement of promoting gender-equal values, the long-standing gender perspective has argued that societal gender norms and expectations shape the division of housework and childcare between men and women (Bianchi et al., 2000; West & Zimmerman, 1987; Thébaud et al., 2019). Therefore, women tend to allocate more time to housework than men to fulfill normative gender expectations. Previous studies show that gender values have progressed significantly, with a majority of Americans now favoring egalitarian partnerships for organizing work and family responsibilities (Cotter, 2018; Gerson, 2010; Pedulla & Thébaud, 2015; Cech, 2016). However, scholars also find that the ideal of gender equality remains difficult to realize in practice. This mismatch between values and behavior, some studies argue, stems from social institutions, particularly the workplace, failing to keep pace with these changing values. As a result, couples are often forced to compromise and settle for suboptimal arrangements (Daminger, 2020;

Thébaud & Halcomb, 2019; Usdansky, 2011). Nevertheless, other studies have found that even when workplace norms become more flexible, men and women may still use these benefits in ways that reinforce traditional gender roles. For example, women often use flexible work arrangements to take on more housework and childcare, whereas men tend to use them to increase their paid work hours (Augustine et al., 2024; Wang & Cheng, 2024; Chung & Booker, 2023). The conflicting findings highlight important limitations in how gender values are understood and measured. First, gender attitudes may consist of multiple dimensions (Cotter et al., 2011; Knight & Briton, 2017; Scarborough et al., 2019), so progress in support for women's employment does not necessarily challenge the traditional caregiving role assigned to women in the household. Additionally, gender attitudes can shift over the life course; for example, becoming parents often leads individuals to adopt more traditional views on the gender division of labor (Baxter et al., 2008; Horne et al., 2018). Lastly, people's responses regarding gender values may be influenced by social desirability bias, reflecting expected norms rather than their true beliefs (Zoch, 2021).

Taken together, the questions raised above motivate **this study to first investigate how job characteristics affect the amount of time individuals spend on household labor**. In addition to work hours and earnings, the study incorporates widely discussed job characteristics such as autonomy, irregular work schedules, expected work hours, time pressure, and competition (see Measurement for details). Ordinary Least Squares (OLS) regression is employed to analyze these factors, helping to build a holistic understanding of how workplace conditions are associated with time spent on housework. **Second, this study examines how gender differences in job characteristics contribute to the unequal sharing of household labor between men and women**. Using the Blinder–Oaxaca decomposition, the analysis not only assesses the extent to which job characteristics contribute to gender inequality in household labor but also determines whether the gender gap is attributable to compositional differences or behavioral responses. By identifying the relative contributions of compositional differences and behavioral responses, this study sheds light on whether institutional reforms or shifts in gender-role values are more urgently needed to advance the gender revolution. Behavioral responses, in particular, reveal how men and women react to job demands and resources, offering an alternative lens through which to understand gender values and norms (Milkie et al., 2025).

Specifically, this study uses data from the 2003–2019 American Time Use Survey, dividing the sample into two periods: 2003–2010 and 2011–2019. This approach enables the analysis to capture long-term trends and reflect broader societal changes over time, particularly in understanding the gender gap in household labor and the role of job characteristics and gender values. In addition, previous research has emphasized the importance of distinguishing between different types of household labor (Coltrane, 2000; García-Román et al., 2024; Sullivan, 2013). Housework is generally considered less enjoyable than childcare, and the two have followed different trajectories of social change. For instance, women have reduced their time spent on housework, while men have slightly increased their participation; both men and women, however, have increased their time devoted to childcare (Altintas & Sullivan, 2016; Bianchi et al., 2012; Pailhé et al., 2021). Moreover, housework and childcare respond differently to work conditions. For example, flexible working arrangements may intensify the gender gap in routine housework tasks more significantly (Wang & Cheng, 2024).

Moreover, further distinctions within housework and childcare are crucial, particularly when discussing gender differences in household labor. Female-typed housework tends to be more routine, less pleasant, more time-consuming, and less flexible compared to male-typed housework (Coltrane, 2000). Women greatly shoulder the burden of female-typed housework, while men are more willing to engage in male-typed housework. Also, over time, male-typed housework appears to become gender-neutral (García-Román et al., 2024). A similar distinction applies to childcare. Care-based childcare involves more routine and inflexible tasks, such as physical and medical care, as well as picking up and dropping off children. Interaction-based childcare tends to be more interesting and enjoyable, involving activities like reading, playing, and talking or listening to children. Women are often expected to be responsible for care-based childcare, while men are more willing to take on tasks that involve interaction with children (Musick et al., 2016). To capture these nuances and provide deeper insight into gender differences in household labor, this study categorizes tasks into four types for analysis: female-typed housework, male-typed housework, care-based childcare, and interaction-based childcare.

DATA AND METHOD

Data

To address the research questions, this study uses the American Time Use Survey (ATUS), which is a nationally representative cross-sectional time diary survey in the US. Since 2003, the ATUS annually collects activities for the non-institutionalized population aged 15 years and older, starting at 4 a.m. and continuing for the next 24 hours on a randomly chosen day. Respondents of the ATUS are the subsamples of the Current Population Survey (CPS), randomly selected from households that completed the CPS final (eighth) interview. The ATUS interview occurs approximately two to five months after their final CPS interview. This study uses the ATUS 2003-2019, and combines 2003-2010 and 2011-2019 into two periods, which facilitates comparisons between the 2000s and the 2010s, and avoids potential fluctuating noise, resulting from using a single year. Although data from 2020 to 2022 are available at the time of writing this study, the outbreak of the Covid-19 pandemic has disrupted daily routines, which could lead to unintentional impacts. Therefore, these years were excluded from the analysis.

Additionally, some job characteristics in this study are derived from the Occupational Information Network (O*NET) database developed by the U.S. Department of Labor. The O*NET database was launched in 1998 to replace the Dictionary of Occupational Titles (DOT), and partially updated each year, with approximately 100 occupations updated annually. The O*NET contains standardized and occupation-specific descriptors from surveys of job incumbents, occupational experts, and occupational analysts. This dataset offers critical insights into the experience of the American labor force, and has been widely used in previous research (eg., Hook et al., 2022; Yu & Kuo, 2017; Goldin, 2014). This study uses the latest version of the O*NET for each year, aligning with the ATUS survey years included in the analysis.

Because the O*NET uses a more detailed variant of occupational codes based on the Standard Occupational Classification (SOC 2002 before 2011; SOC 2010 after 2011), O*NET's crosswalk is used to match O*NET data to SOC codes. Then, a crosswalk provided by the Census Bureau is employed to bridge the SOC codes used by O*NET with the Census Occupation Codes (Census 2002 before 2011; Census 2010 after 2011) used by ATUS. Note that O*NET includes more detailed occupational categories than ATUS. To align the datasets, I take the average of the values for all related occupations in O*NET to match the broader occupational categories in ATUS. This aggregation strategy has been used in previous studies (e.g., Hook et al., 2022; Yu & Kuo, 2017, 2022).

Sample

The sample of this study includes respondents aged 25-64 who are employed and co-reside with an employed partner and at least one child under 17. This demographic is more likely to encounter time squeezes, role overload, and difficulties juggling work and family demands, along with a larger gender gap in household labor. This restriction also minimizes the influence of unobserved factors not captured in the ATUS data. After excluding those working without pay or self-employed due to a lack of earnings information, the sample size is 28,753. Additionally, cases without information on occupational characteristics from O*NET are deleted. Some of these cases correspond to Census Occupational Codes ending in "all others" (e.g., "sales and related workers, all others"), which are too general to provide a match. Others are missing because of the transition to updated occupation codes in O*NET. The final sample size is 24,640, with 11,939 for Period 1 (2003-2010), and 12,701 for Period 2 (2011-2019).

Measurement

Dependent Variables. This study includes four dependent variables: female-typed housework, male-typed housework, care-based childcare, and interaction-based childcare. Female-type housework includes cleaning, laundry, food preparation, caring for pets, household management, and consumer purchases (activity codes are 201, 202, 206, 209, 701-799). Male-type housework includes maintenance, lawn, and repair (activity codes are 203-205, 207- 208). Care-based childcare includes physical & medical care, organization & plaining for children, looking after children, attending children's events, and picking up/dropping off children (activity codes are 30101, 30108-30199, 30202, 30204, 30299, 30301-30399). Interaction-based childcare includes reading, playing, talking/listening, homework, and homeschooling (activity codes are 30102-30105, 30186, 30201, 30203). The four independent variables are measured in daily minutes and topcoded at the 99th percentile.

Main Predictors. The primary independent variables include gender, weekly work hours, weekly earnings, and five occupational characteristics derived from the O*NET: autonomy, irregular work schedules, expected work hours, time pressure, and competition.

Gender consists of women (coded as 1), and men (coded as 0)

Weekly work hours refers to the actual number of hours an individual usually works per week. Those who report varying work hours (n=904, 3.67%) are replaced with the average hours of full-time employment for full-time workers and the average hours for part-time employment for part-time workers in that year (Hook et al., 2022).

Weekly earnings indicates an individual's usual weekly earnings (including usual overtime pay) in dollars, and is topcoded at $2884.61 by the ATUS.[1]

Autonomy provides individuals with greater control over their schedules, allowing them to arrange temporal boundaries between work and family, thereby accommodating family needs, and unpredictability. It is measured using two items (α=.87): (1) To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals? (2) How much decision-making freedom, without supervision, does the job offer?

Irregular work schedule requires employees to adjust their schedules according to work demands, making it difficult to meet family needs, such as attending teacher conferences, children's soccer games, or caring for a sick child (Shows & Gerstel, 2009). It is measured using one item: How regular are the work schedules for this job?

Expected work hours refers to the typical work hours associated with a particular occupation, reflecting occupational work-time norms rather than individuals' actual hours worked. These norms often create pressure to work overtime, further limiting the ability to engage in household labor (Cha, 2010; Cha & Weeden, 2014). This measure is based on the question: Number of hours typically worked in one week. It represents the standard hours expected for an occupation.

Time pressure forces employees to prioritize work over other obligations, leading to constant stress and anxiety. This strain not only affects their well-being but also reduces their capacity to participate in household labor. It is measured by the item: "How often does this job require the worker to meet strict deadlines?"

Competition signals the need to put in extra effort to succeed, reinforcing the work devotion schema and reducing availability for family responsibilities This pressure makes it challenging for individuals to fully engage in household tasks. It is measured by the question: To what extent does this job require the worker to compete or to be aware of competitive pressures?

These occupational characteristics derived from O*NET have been extensively examined in studies on the motherhood penalty, gender wage gap, and childcare time (e.g., Hook et al., 2022; Yu & Kuo, 2017, 2022). They are standardized in the analyses. Appendix 1 presents correlation coefficients between these independent variables, which mostly show weak correlations, thereby mitigating concerns of multicollinearity. Appendix 2 depicts the trends in household labor and job

[1] Since the gender-neutral deviation argument has been challenged (e.g., Gupta, 1999, 2007; Bittman et al., 2003; Hook, 2017), and relative income between partners shows no association with housework (Nitsche & Grunow, 2016), weekly earnings are included in absolute and linear form in the analyses.

characteristics by gender from 2003 to 2019, highlighting the benefits and necessity of dividing the data into distinct periods (Milkie et al., 2025).

Table 1. *Descriptive statistics for all variables (weighted)*

	2003-2010		2011-2019	
	Men	Women	Men	Women
Female-typed housework	65.79	148.70	67.88	140.56
	(84.60)	(126.48)	(87.61)	(122.31)
Male-typed housework	31.73	10.35	26.00	7.60
	(78.52)	(43.84)	(72.83)	(36.55)
Care-based childcare	27.34	53.35	29.59	52.98
	(50.00)	(66.89)	(50.06)	(65.50)
Interaction-based childcare	21.39	28.35	24.71	30.00
	(47.56)	(51.05)	(51.57)	(55.32)
Weekly work hours	45.93	36.15	45.20	36.93
	(10.35)	(11.68)	(10.03)	(11.39)
Weekly earnings	1094.73	715.71	1290.89	912.34
	(636.40)	(542.78)	(724.20)	(647.99)
Autonomy	0.04	-0.12	-0.10	-0.07
	(1.09)	(1.05)	(0.98)	(0.99)
Irregular work schedule	0.39	-0.29	0.34	-0.23
	(1.13)	(0.82)	(1.04)	(0.86)
Expected work hours	0.28	-0.42	0.27	-0.23
	(0.85)	(1.04)	(0.84)	(1.08)
Time pressure	0.09	-0.19	0.19	-0.06
	(0.95)	(1.13)	(0.85)	(1.06)
Competition	0.18	-0.36	0.30	-0.19
	(0.96)	(0.98)	(0.86)	(1.02)
Age	40.36	38.64	40.85	39.24
	(7.69)	(7.13)	(7.91)	(7.26)
Partnership				
Married	97.51	97.52	94.70	93.50
Cohabiting	2.49	2.48	5.30	6.50
Partner's employment status				
Full-time	70.14	95.83	73.84	95.28
Part-time	29.86	4.17	26.16	4.72

Education				
Less than college	61.48	57.88	54.89	46.19
College and above	38.52	42.12	45.11	53.81
Race				
White	73.72	73.55	69.81	68.34
Black	6.80	7.60	8.11	7.24
Hispanic	13.90	12.56	14.81	15.92
Others	5.58	6.29	7.26	8.50
Child aged 0-5				
No	57.44	59.65	57.69	59.97
Yes	42.56	40.35	42.31	40.03
Child aged 6-12				
No	46.47	47.38	46.83	44.59
Yes	53.53	52.62	53.17	55.41
Child aged 13-17				
No	58.55	56.76	59.70	58.97
Yes	41.45	43.24	40.30	41.03
Weekend				
No	70.30	69.86	70.75	69.81
Yes	29.70	30.14	29.25	30.19
Occupation				
Management	17.75	15.39	21.12	18.58
Professional and related	24.15	34.76	24.70	39.19
Service	10.08	13.63	10.39	14.26
Sales and office	15.44	30.82	13.30	23.43
Construction and maintenance	16.86	0.89	15.34	0.87
Production and transportation	15.73	4.51	15.15	3.67
Survey year (Period 1/ Period 2)				
2003 / 2011	2.43	3.48	10.30	10.23
2004 / 2012	9.01	9.80	10.14	9.58
2005 / 2013	10.19	12.24	11.26	10.42
2006 / 2014	15.80	14.54	11.00	10.98
2007 / 2015	16.49	16.04	11.17	10.93
2008 / 2016	15.44	15.05	11.34	11.35
2009 / 2017	15.58	14.72	10.94	12.17
2010 / 2018	15.06	14.13	11.59	11.64
— / 2019			12.27	12.70
N	5,216	6,723	6,046	6,655

Covariates. *Age* is included as a continuous variable. *Partnership status* indicates whether the respondent is in married (coded as 0) or cohabiting (coded as 1) relationship. *Partner's employment status* is categorized as partner employed full-time (coded as 0) and partner employed part-time (coded as 1). This variable is generated using partner's employment and work hours information with the "time varying" category (n=816, 3.31%) replaced by the average work hours. *Education* is coded as 0 "less than college" and 1 "college and above". *Race* is coded as 0 "White", 1 "Black", 2 "Hispanic", and 3 "others". Three binary variables are created to indicate whether respondents have children aged 0-5, aged 6-12, and aged 13-17 in the household, with 0 representing "No", and 1 representing "Yes". *Weekend* is a dichotomous indicator, indicating whether time diary interviews are conducted on the weekend or holidays (0 "weekdays" 1 "weekend or holiday"). *Occupation* is categorized into management; professional and related; service; sales and office; construction and maintenance; and production and transportation. *Survey years*, created as a categorical variable, refers to the interview year from 2003 to 2019. See details for all variables in Table 1.

Analytical strategies

To address the research questions, this study first conducts OLS regression by period. This approach has been commonly adopted by time use studies (e.g., Bianchi et al., 2000; Chao, 2022; Hook et al., 2022; Milkie et al., 2025; Pepin et al., 2018), yielding unbiased estimates. Model 1 includes gender and covariates, examining gender differences net of sociodemographic factors. Building upon Model 1, Model 2 incorporates job characteristics to examine their relationship with household labor and to observe the extent to which the gender gap is reduced when these variables are included.

Next, the Blinder–Oaxaca Decomposition is employed to disentangle gender differences in household labor into three components: composition effects, behavior effects, and interaction effects (Fortin et al., 2011; Jann, 2008; O'Donnell et al., 2007). *Composition (explained) effects* refer to the proportion of the gender gap in household labor attributed to gender differences in the magnitudes of the determinants of the outcome. This study primarily focuses on job characteristics, illustrating how women's household labor time would differ if they had the same job characteristics as men. *Behavior (unexplained) effects* represent the proportion of the gender gap in household labor attributed to gender differences in the coefficients of these determinants. They indicate how women's household labor time would change if they exhibited the same behavioral responses to job characteristics as men. This offers an alternative lens for assessing shifts in gender norms and values. *Interaction effects* capture the interaction between composition and behavior. This study discusses only the composition and behavior effects in order to isolate the true impact of compositional differences and behavioral responses. Notably, all primary independent variables are continuous with a natural zero, escaping from biased estimate due to the different base of categorical variable (Jann, 2008).

All analyses employed weights provided by ATUS.

RESULTS

OLS Regression: Job Characteristics and Household Labor

Female-typed housework

Table 2 presents results predicting daily minutes spent on housework, with female-typed housework shown on the left and male-typed housework on the right. Model 1 in the left panel illustrates that, controlling for covariates, women, on average, spent 82 minutes more than men daily on female-typed housework in 2003-2010, and 70 minutes more in 2011-2019.

When job characteristics are included in Model 2, the gender gap in female-typed housework time reduces to 67 and 57 minutes for the respective periods. This suggests that around 18-19% of the gender difference in this type of housework can be attributed to job characteristics. Among these, weekly work hours and earnings are negatively associated with female-typed housework in both periods, though the effects are modest—each unit increase reduces time by only one minute or less. Notably, the coefficients for these two factors remain largely unchanged across the two periods. Moreover, time pressure shows a significant negative relationship in the second period, suggesting that jobs with strict deadlines may have constrained commitment to this type of housework in the more recent decade.

Male-typed housework.

Model 1 in the right panel shows that men, on average, spent 19 minutes more on male-typed housework than women in 2003–2010, with the difference slightly narrowing to 16 minutes in 2011–2019. Model 2, which incorporates job characteristics, indicates that only weekly work hours are negatively associated with male-typed housework, suggesting that this type of housework is more closely linked to time availability, although the effect size is small. Job characteristics account for only 0.9% of the gender gap in male-typed housework.

The contrast between results for female-typed and male-typed housework underscores the importance of distinguishing between housework types in research.

Table 2. *OLS results: Job characteristics and housework (minutes/daily)*

	Female-typed Housework				Male-typed Housework			
	Period 1 (2003-2010)		Period 2 (2011-2019)		Period 1 (2003-2010)		Period 2 (2011-2019)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Women	82.13**	66.60**	70.23**	57.41**	-18.62**	-19.51**	-15.96**	-16.87**
	(2.33)	(2.62)	(2.32)	(2.47)	(1.39)	(1.56)	(1.22)	(1.32)
Weekly work hours		-1.11**		-1.12**		-0.12*		-0.15**

	(0.10)	(0.13)	(0.05)	(0.05)
Weekly earnings	-0.01**	-0.01**	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Autonomy	0.30	0.80	0.47	-1.20
	(1.34)	(1.49)	(0.75)	(0.86)
Irregular work schedule	-2.41	-1.96	0.41	0.83
	(1.46)	(1.28)	(0.74)	(0.82)
Expected work hours	-2.42	-0.02	1.07	0.43
	(1.48)	(1.54)	(0.84)	(0.86)
Time pressure	-0.41	-4.17**	-0.63	-0.40
	(1.29)	(1.42)	(0.67)	(0.70)
Competition	-0.25	-1.83	-0.67	-0.39
	(1.38)	(1.42)	(0.68)	(0.98)

Note: All models control for age, partnership, partner's employment status, education, race, having children aged 0-5, having children aged 6-12, having children aged 13-17, weekend, occupations, and survey years. The number of observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses. * $p < .05$ ** $p < .01$.

Care-based childcare

Table 3 presents results related to childcare, with care-based childcare shown in the left panel and interaction-based childcare in the right panel. Model 1 in the left panel reveals that the gender difference in daily care-based childcare time was 25 minutes in 2003–2010, slightly decreasing to 21 minutes in 2011–2019. Women consistently spent more time on care-based childcare activities, even after controlling for other covariates.

When job characteristics are included in Model 2, the gender gap in care-based childcare time decreases to 20 minutes and 17 minutes in the respective periods, suggesting that approximately 19-21% of the gender gap in care-based childcare activities can be attributed to these factors. The results also indicate that it is weekly work hours, rather than weekly earnings, that are associated with time spent on this type of caregiving. This suggests that time availability, rather than financial resources, influences caregiving time—possibly because childcare tasks are less likely to be outsourced. This aligns with the widespread consensus on child-centered parenting, which tend to shows less variation across social classes. Moreover, work autonomy is positively related to care-based childcare time in the second period, suggesting that in more recent years, having the freedom to prioritize tasks and manage schedule has made it easier to meet caregiving needs.

Interaction-based childcare

Model 1 in the right panel shows that the gender gap in interaction-based activities with children is much smaller compared to other household labor, with differences of 7 minutes for 2003-2010 and 4 minutes for 2011-2019. This suggests that, as previous research has indicated, these activities are more enjoyable and therefore more likely to attract involvement from fathers.

After including job characteristics in Model 2, the gap further narrows to 3 minutes in 2003–2010 and to less than 1 minute in 2011–2019. Similar to care-based activities, only weekly work hours, not weekly earnings, are associated with time spent on interaction-based activities, implying limited variation in these activities across social classes. Moreover, in the second period, time pressure is negatively associated with interaction-based activities, suggesting that in the past decade, jobs with strict deadlines have reduced the time parents spend interacting with their children.

Summary

The OLS results show that only work hours are consistently associated with all types of household labor, highlighting the importance of time availability. Earnings are associated only with female-typed housework, suggesting that this type of labor is more likely to be outsourced when financial resources allow. This also highlights the limitations of monetary resources compared to time availability. The role of other time-related job characteristics, such as autonomy and time pressure, has become more influential in shaping household labor time in recent years. However, coefficients from OLS models cannot distinguish between the effects of job characteristics themselves and the behavioral responses to those characteristics. The former captures how job demands and resources are associated with time spent on household labor, while the latter reflects individuals' attitudes and values toward household labor under specific job conditions. The following decomposition analyses further investigate these distinct effects.

Table 3. *OLS results: Job characteristics and childcare (minutes/daily)*

	Care-based Childcare				Interaction-based Childcare			
	Period 1 (2003-2010)		Period 2 (2011-2019)		Period 1 (2003-2010)		Period 2 (2011-2019)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Women	24.94**	19.66**	20.89**	16.89**	6.57**	2.69*	3.93**	0.72
	(1.30)	(1.45)	(1.18)	(1.28)	(1.17)	(1.30)	(1.14)	(1.24)
Weekly work hours		-0.52**		-0.61**		-0.43**		-0.46**
		(0.06)		(0.07)		(0.05)		(0.05)
Weekly earnings		0.00		0.00		-0.00		0.00
		(0.00)		(0.00)		(0.00)		(0.00)
Autonomy		0.10		1.91**		1.20		1.19
		(0.72)		(0.74)		(0.66)		(0.69)
Irregular work schedule		-0.60		-0.76		0.77		0.43
		(0.66)		(0.69)		(0.59)		(0.67)
Expected work hours		-0.81		0.95		-0.16		0.21
		(0.81)		(0.87)		(0.72)		(0.77)
Time pressure		0.44		-1.37		-0.66		-1.45*
		(0.70)		(0.73)		(0.58)		(0.62)
Competition		-0.08		0.18		0.58		0.31
		(0.77)		(0.78)		(0.63)		(0.68)

Note: All models control for age, partnership, partner's employment status, education, race, having children aged 0-5, having children aged 6-12, having children aged 13-17, weekend, and survey years. The number of observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses. * $p < .05$ ** $p < .01$.

Decomposition Analysis: Job Characteristics, Gender, and Household Labor

Tables 4 and 5 show the Blinder–Oaxaca decomposition results. The upper panels present compositional effects—how women's household labor would change if they had the same job characteristics as men. The lower panels show behavioral effects—how their household labor would change if they responded to job characteristics as men do. The tables also report the share of the gender gap explained by key determinants.

Female-typed housework

The left panel of Table 4 shows that the proportion of the gender difference in female-typed housework explained by compositional effects was 16.44% in 2003–2010 and increased to 29.34% in 2011–2019. The most influential factor of job characteristics is weekly work hours, which accounts for 15.69% in the first period and 18.78% in the second period. If women had the same average weekly work hours as men, their daily time spent on female-typed housework would decrease by approximately 13 minutes. The next significant factor is weekly earnings, which account for 6.15% of the gender gap in the first period and decline to 4.48% in the second period.

If women had the same average weekly earnings as men, their daily time spent on female-typed housework would decrease by 5 minutes in the first period and 3 minutes in the second period. Additionally, time pressure in the 2011–2019 period was statistically significant, explaining just 1.59% of the gender gap. If women experienced the same level of time pressure as men, their time spent on female-typed housework would decrease by 1 minute. The results highlight the emerging influence of certain job characteristics in shaping the gender gap in female-typed housework.

The proportion of the gender gap in female-typed housework explained by behavioral effects is 84.75% in 2003–2010 and 88.65% in 2011–2019. Similarly, among key predictors, the effects of weekly work hours and weekly earnings are statistically significant, and interestingly, they counterbalance the proportion of the explanation attributed to behavior. The results show that if women adopted men's behavioral response to weekly work hours, their time spent on female-typed housework would increase by 22 minutes daily in the first period and 46 minutes in the second period. Moreover, if women adopted men's behavioral response to weekly earnings, their time spent on female-typed housework would increase by 9 minutes in the first period and 7 minutes in the second period.

In sum, the disproportionate gender gap in female-typed housework is primarily driven by behavioral effects, although the influence of compositional effects has been increasing. Among job characteristics, gender differences in weekly work hours are the most influential factor, with their explanatory power rising over time. Gender differences in weekly earnings follow in importance, though their contribution has been declining. Interestingly, behavioral responses to weekly work hours and earnings appear to help narrow the gender gap in female-typed housework. This suggests that men's behavioral norms may be changing, particularly in response to constraints on weekly work hours.

Table 4. *Blinder–Oaxaca decomposition results: Job characteristics and housework*

	Female-typed Housework				Male-typed Housework			
	Period 1 (2003-2010)		Period 2 (2011-2019)		Period 1 (2003-2010)		Period 2 (2011-2019)	
	Minutes	% of total	Minutes	% of total	Minutes	% of total	Minutes	% of total
Total difference	**-82.91**		**-72.68**		**21.38**		**18.40**	
Composition	**-13.63****	**16.44**	**-21.32****	**29.34**	**-2.31***	**-10.81**	**-0.89**	**-4.83**
	(4.56)		**(3.97)**		**(1.11)**		**(1.14)**	
Weekly work hours	-13.01**	15.69	-13.65**	18.78	0.28	1.29	-0.70	-3.83
	(1.72)		(1.61)		(0.57)		(0.43)	
Weekly earnings	-5.10**	6.15	-3.26**	4.48	-1.20**	-5.61	-0.07	-0.36
	(1.45)		(1.15)		(0.45)		(0.57)	
Autonomy	-0.19	0.23	0.03	-0.04	0.08	0.39	-0.00	-0.01
	(0.36)		(0.08)		(0.10)		(0.03)	
Irregular work schedule	0.21	-0.26	-1.14	1.57	0.02	0.07	0.33	1.77

	(1.94)		(1.39)		(0.44)		(0.52)	
Expected work hours	-0.83	1.01	0.82	-1.13	-0.03	-0.12	-0.04	-0.24
	(1.55)		(1.15)		(0.54)		(0.42)	
Time pressure	0.35	-0.42	-1.15*	1.59	-0.22	-1.01	-0.16	-0.86
	(0.54)		(0.55)		(0.19)		(0.20)	
Competition	-0.60	0.72	-0.46	0.63	-0.12	-0.58	-0.44	-2.37
	(1.21)		(1.07)		(0.32)		(0.53)	
Behaviors	**-70.27****	**84.75**	**-64.43****	**88.65**	**20.11****	**94.09**	**15.82****	**85.97**
	(3.03)		**(2.91)**		**(2.15)**		**(1.71)**	
Weekly work hours	22.13**	-26.69	46.41**	-63.85	-11.88**	-55.56	-4.66	-25.32
	(7.44)		(9.62)		(4.20)		(4.04)	
Weekly earnings	9.16**	-11.05	7.32*	-10.07	2.36	11.04	1.18	6.41
	(3.12)		(3.25)		(1.51)		(2.02)	
Autonomy	-0.35	0.42	-0.18	0.24	0.02	0.11	0.15	0.83
	(0.33)		(0.20)		(0.18)		(0.12)	
Irregular work schedule	1.30	-1.57	-0.12	0.16	-0.12	-0.55	-0.07	-0.39
	(0.91)		(0.64)		(0.40)		(0.35)	
Expected work hours	0.14	-0.17	0.12	-0.16	-0.71	-3.33	-0.05	-0.26
	(1.20)		(0.69)		(0.77)		(0.40)	
Time pressure	0.47	-0.57	-0.20	0.27	-0.06	-0.26	-0.01	-0.03
	(0.48)		(0.17)		(0.29)		(0.09)	
Competition	-0.17	0.20	0.52	-0.72	0.21	0.97	-0.36	-1.97
	(0.99)		(0.52)		(0.51)		(0.38)	
Interaction	**0.99**	**-1.19**	**13.08****	**-17.99**	**3.57**	**16.71**	**3.47**	**18.86**
	(4.95)		**(4.37)**		**(2.07)**		**(1.80)**	

Note: All models control for age, partnership, partner's employment status, education, race, having children aged 0-5, having children aged 6-12, having children aged 13-17, weekend, occupations, and survey years. The number of observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses. Full models are available in the appendix 5. * $p < .05$ ** $p < .01$.

Male-typed housework

The right panel of Table 4 shows that the compositional effects explain only 10.81% of the gender difference in male-typed housework time for the period 2003–2010, dropping to 4.83% with no statistical significance in the period 2011–2019. Among job characteristics, weekly earnings is the only significant variable in the first period, with a minimal influence, but it becomes insignificant and negligible in the second period. This suggests that gender differences in job characteristics are not related to the unequal sharing of male-typed housework between men and women.

The proportion of the behavioral effects explain 94.09% of the gender gap in male-typed housework in the first period, declining to 85.97% thereafter. Among job characteristics, only work hours is significant, showing that women would reduce their time on male-typed housework by 12 minutes if they adopted men's behavioral response to it. Interestingly, unlike female-typed housework, women are more responsive to male-typed housework than men under the work hour constraints, even though men typically do more. However, the influence of work hours is no longer significant in the second period.

In sum, gender differences in the composition of sociodemographic characteristics have even less power in explaining male-typed housework compared to female-typed housework, and their explanatory power declines to insignificance over time. The behavioral effect plays a more influential role in the gender gap in male-typed housework, although it also experiences a decline. Moreover, job characteristics, in general, play a minimal role in explaining gender differences in this type of housework.

Care-based childcare

The upper left panel of Table 5 illustrates that compositional effects account for 37.61% of the gender difference in care-based childcare activities in 2003–2010, increasing to 44.5% in 2011–2019. Among job characteristics, only weekly work hours play a significant role, explaining around 27% of the gender gap in both periods. The results indicate that if women had the same average weekly work hours as men, their time spent on care-based childcare activities would decrease by about 7 minutes daily. Other job-related variables have no notable contributions.

The lower left panel indicates that behavioral effects explain 88.7% of the gender gap in care-based childcare in 2003–2010, with a slight decline to 83.22% in 2011–2019. Similarly, among job characteristics, only weekly work hours has a significant influence, but the direction of the effect offsets part of the behavioral explanation. Specifically, if women exhibited the same behavioral response to weekly work hours as men, their time spent on care-based childcare activities would increase by 19 minutes daily in 2003–2010 and by 13 minutes in 2011–2019.

In brief, behavioral differences play a larger role than gender differences in sociodemographic composition in explaining the gender gap in care-based childcare. However, the explanatory power of compositional effects has slightly increased over time, while that of behavioral effects has shown a modest decline. Among job characteristics, only weekly work hours have a significant influence in explaining this gap. Interestingly, although men's longer work hours are associated with less time spent on care-based childcare, they appear more responsive to work-hour constraints than women. This may reflect gradual progress in gender norms surrounding the division of care-based childcare responsibilities.

Interaction-based childcare

The right upper panel of Table 5 shows that compositional effects account for a significant portion of the gender difference in interaction-based childcare, rising from 68.71% in 2003–2010

to 107.22% in 2011–2019. However, it is important to note that the overall gender gap in time spent on these activities is quite small. Among job characteristics, weekly work hours is the most influential factor, explaining 70.5% of the gap in the first period and 92.58% in the second. These findings suggest that if women had the same average weekly work hours as men, their time spent on interaction-based childcare would decrease by approximately five minutes daily in both periods.

The lower right panel shows that the proportion of behavioral effects in explaining the gender gap in interaction-based childcare is 64.39% in 2003–2010, declining to 38.91% in 2011–2019. In the first period, there is no significant influence from job characteristics; however, in the second period, both weekly work hours and autonomy show an impact. Weekly work hours have a counterbalancing effect, suggesting that if women adopted men's behavioral response to work hours, they would spend 11 more minutes on interaction-based childcare. In contrast, the influence of autonomy is in the opposite direction, and the effect is negligible, amounting to less than a one-minute change if women adopted men's coefficient.

In sum, compositional effects have greater explanatory power for the gender gap in interaction-based childcare, with a particularly dramatic increase in 2011–2019. This suggests that interaction-based childcare is influenced less by gender norms and more by sociodemographic differences—a trend that has become more pronounced over time. Additionally, gender differences in weekly work hours hinder the equal sharing of interaction-based childcare. Interestingly, men appear more responsive to this type of childcare within the constraints of their work hours, suggesting that interaction-based childcare may be perceived as more enjoyable compared to other household tasks.

Table 5. *Blinder–Oaxaca decomposition results: Job characteristics and childcare*

	Care-based Childcare				Interaction-based Childcare			
	Period 1 (2003-2010)		Period 2 (2011-2019)		Period 1 (2003-2010)		Period 2 (2011-2019)	
	Minutes	% of total	Minutes	% of total	Minutes	% of total	Minutes	% of total
Total difference	**-26.01**		**-23.40**		**-6.97**		**-5.30**	
Composition	**-9.78****	**37.61**	**-10.41****	**44.50**	**-4.79***	**68.71**	**-5.70****	**107.72**
	(2.77)		**(1.80)**		**(2.12)**		**(1.41)**	
Weekly work hours	-6.95**	26.72	-6.22**	26.58	-4.91**	70.50	-4.90**	92.58
	(0.90)		(0.93)		(0.74)		(0.63)	
Weekly earnings	-0.00	0.01	0.48	-2.05	-0.57	8.11	0.43	-8.15
	(0.72)		(0.59)		(0.56)		(0.52)	
Autonomy	0.00	-0.00	-0.08	0.32	0.33	-4.74	0.03	-0.60
	(0.18)		(0.07)		(0.17)		(0.04)	
Irregular work schedule	-0.83	3.17	-0.42	1.79	0.62	-8.91	0.84	-15.93

	(0.76)		(0.71)		(0.67)		(0.57)	
Expected work hours	-0.37	1.41	1.05	-4.48	-0.68	9.79	0.24	-4.60
	(0.81)		(0.64)		(0.69)		(0.54)	
Time pressure	0.09	-0.36	-0.41	1.73	-0.34	4.82	-0.25	4.70
	(0.28)		(0.27)		(0.22)		(0.21)	
Competition	-0.00	0.01	-0.14	0.60	0.74	-10.61	0.35	-6.61
	(0.63)		(0.57)		(0.51)		(0.47)	
Behaviors	**-23.07****	**88.70**	**-19.47****	**83.22**	**-4.49****	**64.39**	**-2.06**	**38.91**
	(1.69)		**(1.48)**		**(1.66)**		**(1.55)**	
Weekly work hours	18.92**	-72.77	13.38**	-57.21	7.10	-101.84	10.61**	-200.36
	(4.01)		(4.73)		(3.62)		(3.83)	
Weekly earnings	1.28	-4.93	-0.21	0.91	0.74	-10.59	-0.27	5.08
	(1.69)		(1.77)		(1.39)		(1.64)	
Autonomy	-0.00	0.02	0.07	-0.30	0.20	-2.82	-0.24*	4.47
	(0.17)		(0.10)		(0.17)		(0.11)	
Irregular work schedule	-0.25	0.96	0.05	-0.20	0.15	-2.09	0.38	-7.21
	(0.40)		(0.34)		(0.36)		(0.31)	
Expected work hours	0.51	-1.94	0.57	-2.44	-0.62	8.87	0.05	-0.99
	(0.69)		(0.38)		(0.64)		(0.36)	
Time pressure	-0.11	0.42	-0.02	0.08	-0.24	3.43	0.07	-1.29
	(0.28)		(0.09)		(0.23)		(0.08)	
Competition	0.06	-0.23	-0.22	0.94	0.54	-7.82	0.15	-2.88
	(0.55)		(0.29)		(0.46)		(0.26)	
Interaction	**6.84***	**-26.31**	**6.48****	**-27.72**	**2.31**	**-33.10**	**2.47**	**-46.63**
	(2.97)		**(1.95)**		**(2.47)**		**(1.74)**	

Note: All models control for age, partnership, partner's employment status, education, race, having children aged 0-5, having children aged 6-12, having children aged 13-17, weekend, occupations, and survey years. The number of observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses. Full models are available in the appendix 6. * $p < .05$ ** $p < .01$.

CONCLUSION AND DISCUSSION

This study uses data from the American Time Use Survey (ATUS), combined with occupational information from O*NET, to examine whether and how job characteristics contribute to the unequal division of household labor between men and women. Specifically, it addresses two research questions. The first is whether job characteristics are associated with the time spent on housework and childcare. Using OLS regression, the analysis incorporates widely discussed job-related variables to provide a more holistic view of how these characteristics shape time spent on household labor. The second is to examine the extent to which the gender gap in household labor

can be attributed to gender differences in the composition of job characteristics, and to what extent it reflects differences in norms and behavioral responses. Using the Blinder–Oaxaca decomposition, the analyses quantify the compositional and behavioral effects contributing to the gender gap in household labor. To fully capture the dynamics of household labor and account for societal changes, tasks are categorized into four types: female-typed housework, male-typed housework, care-based childcare, and interaction-based childcare. The analysis also divides the data into two time periods to reflect changes over time.

The results from OLS regression show that weekly working hours are significantly associated with all types of household labor, highlighting time availability as a key job characteristic influencing domestic responsibilities. In contrast, weekly earnings are linked only to female-typed housework, likely reflecting the capacity to outsource less desirable, routine, and inflexible tasks. Notably, the effects of certain time-related job characteristics become more pronounced in the later period. For instance, time pressure is negatively associated with time spent on female-typed housework and interaction-based childcare. This suggests that jobs with strict deadlines may compel individuals to prioritize work demands, leaving them with insufficient time and mental energy for routine domestic tasks or meaningful engagement with children. Additionally, job autonomy is positively associated with care-based childcare, likely because greater flexibility enables parents to manage responsibilities such as taking a sick child to the doctor or attending school meetings (Kuang et al 2025; Augustine et al 2024).

In addition, results from the Blinder–Oaxaca decomposition show that gender differences in the composition of job characteristics account for a smaller share of the gender gap in household labor compared to behavioral effects—contributing almost negligibly to male-typed housework—except in the case of interaction-based childcare. This suggests that behaviors and norms are the primary drivers of gender inequalities in both types of housework and in care-based childcare, as these are routine, task-oriented responsibilities that must be completed regardless of circumstance. In contrast, interaction-based childcare—which tends to be more engaging and emotionally rewarding—appears to depend more on job demands and resources than on underlying values and norms, as reflected in the fact that the gender gap in this type of childcare is the smallest. Nevertheless, it is worth noting that the contribution of compositional effects to the gender gap in household labor has increased over time—except in the case of male-typed housework, which remains strongly gendered (Christopher 2024). The contribution of behavioral effects has shown a slight decline over time, except in the case of female-typed housework, reflecting a gradual loosening of norms surrounding household labor, as suggested in previous research (Cotter, 2018; Gerson, 2010; Milkie et al., 2025; Pedulla & Thébaud, 2015).

Regarding the compositional effects of job characteristics, gender differences in weekly work hours are the most influential factor explaining the gender gap in interaction-based childcare, followed by care-based childcare and female-typed housework. This impact has increased over time, particularly for interaction-based childcare, accounting for up to 92.8% of the compositional effect, and to a lesser extent for female-typed housework. In contrast, gender differences in weekly earnings make contribute only minimally to the gender gap in both female-typed and male-typed

housework, and this effect has diminished over time, showing no significant impact on male-typed housework in the more recent period. Gender differences in time pressure have recently begun to show a minor effect on the gender gap in household labor. The results highlight that the culture of long work hours poses a serious barrier to advancing gender equality in household labor. Long work hours compel both men and women to make suboptimal choices, reinforcing traditional gender practices (Cha, 2013; Gerson, 2010; Pedulla & Thébaud, 2015). These findings also suggest that other work arrangements such as work flexibility may not effectively mitigate the negative effects of long work hours. Furthermore, the contribution of resource-power appears to be diminishing, with only a limited impact on female-typed housework.

The results for the behavioral effects of job characteristics are notable, as their directions run counter to those of the overall behavioral effects. Among these characteristics, weekly work hours remain the most influential factor, with a growing impact on female-typed housework and interaction-based childcare. This opposite direction suggests that if women adopted men's behavioral responses to weekly work hours, their time spent on household labor, excluding male-typed housework, would increase. This pattern signals a possible shift in men's norms and values surrounding household labor, consistent with the findings of Milkie et al. (2025). A similar pattern appears in the relationship between weekly earnings and female-typed housework. An emerging finding worth noting is that, in the more recent period, if women adopted men's behavioral responses to autonomy, their time spent on interaction-based childcare would decrease. This finding echoes prior studies showing that work arrangements intended to support work–family balance often exacerbate gender inequalities in childcare, as women tend to use such flexibility for more childcare, whereas men do not (Augustine et al., 2024; Chung & Booker, 2023).

Since the behavioral effects of job characteristics run counter to the overall pattern, this raises the question of which factors drive the overall behavioral effects. Several notable factors emerge from the full Blinder–Oaxaca decomposition results presented in Appendices 5 and 6. Men's behavioral responses to age and weekends appear to reinforce the gendered nature of female-typed housework, and weekends also play a significant role in shaping male-typed housework. Meanwhile, men seem less responsive than women to care-based childcare when children are aged 0–5. These findings offer avenues for future exploration.

Nevertheless, it goes without saying that this study has some limitations, which future research could address and improve upon. For example, some job characteristics are derived from O*NET data linked to individuals' occupations rather than their specific job positions, where variation is likely much greater than at the occupational level. Moreover, the presence of certain work arrangements at the workplace does not guarantee that workers make use of them. In addition, the absence of couple-level time diary data limits the ability to conduct more nuanced analyses of couple dynamics. Despite these limitations, the study underscores the need for society to recognize and support both men and women in their dual roles as workers and caregivers. Investing in long-term infrastructure to balance work and family life, particularly addressing the work devotion narrative, is crucial.

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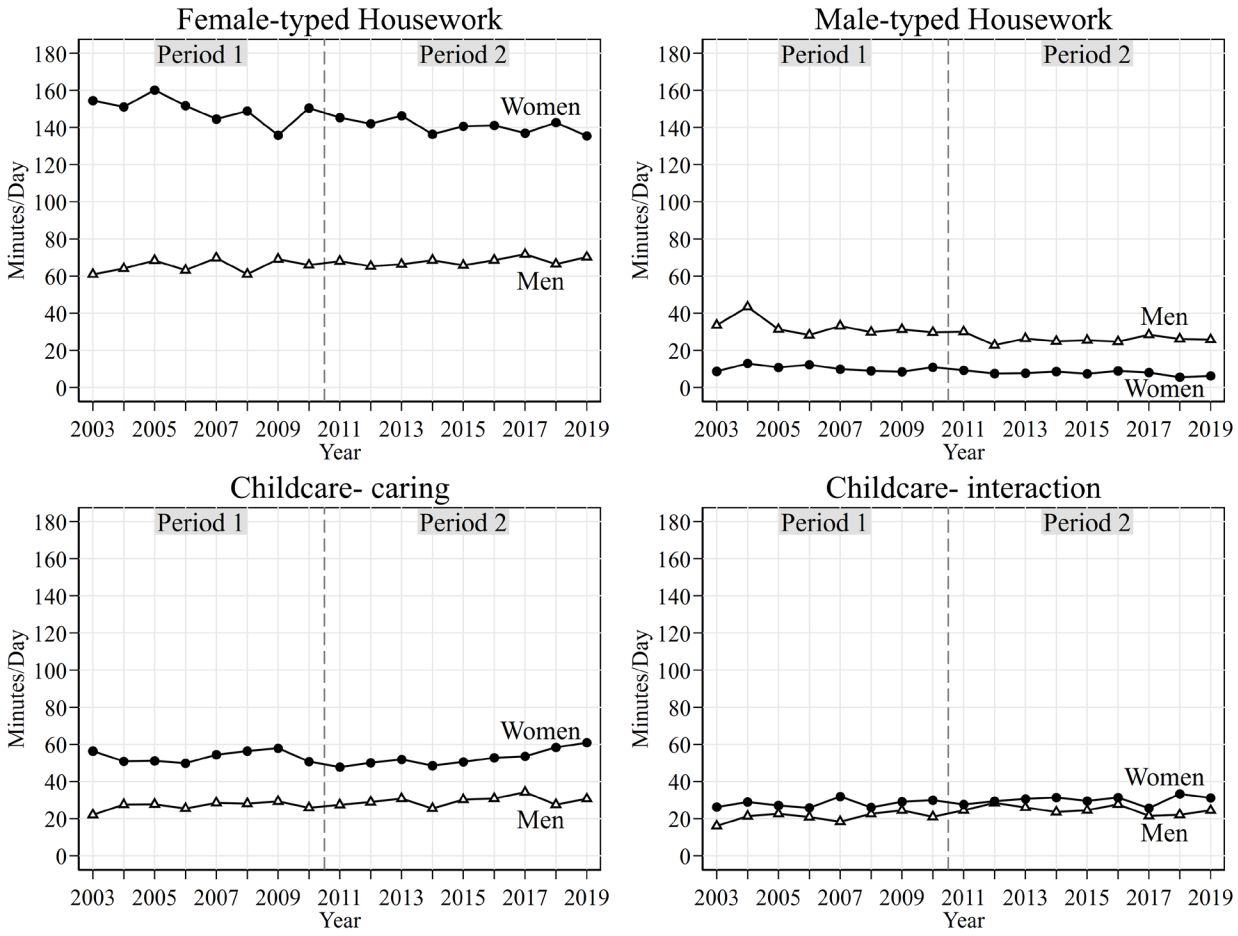
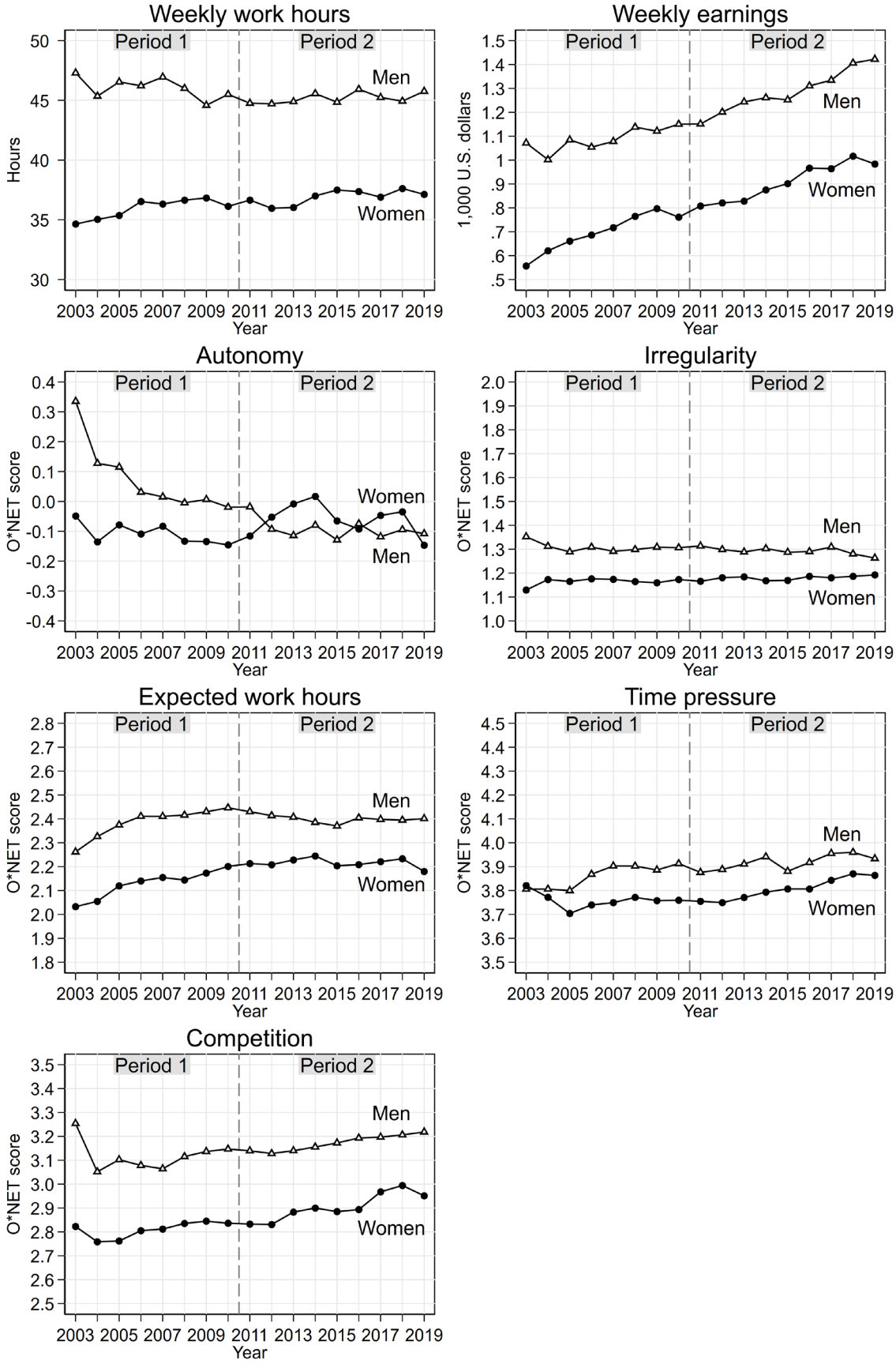
APPENDICES

Appendix 1. *Correlation between the main independent variables*

	Autonomy	Irregular work schedule	Expected work hours	Time pressure	Competition	Weekly work hours	Weekly earnings
Autonomy	1.00						
Irregular work schedule	-0.07	1.00					
Expected work hours	0.46	0.06	1.00				
Time pressure	0.22	0.02	0.39	1.00			
Competition	0.40	0.25	0.52	0.34	1.00		
Weekly work hours	0.13	0.12	0.32	0.16	0.21	1.00	
Weekly earnings	0.33	-0.02	0.43	0.19	0.39	0.39	1.00

Appendix 2. The trend of household labor and job characteristics by gender from 2003 to 2019




Weekly work hours
Period 1
Period 2
Men
Women
Hours
50
45
40
35
30
2003 2005 2007 2009 2011 2013 2015 2017 2019
Year
Weekly earnings
1,000 U.S. dollars
1.5
1.4
1.3
1.2
1.1
1
.9
.8
.7
.6
.5
Autonomy
O*NET score
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
Irregularity
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
Expected work hours
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2.0
1.9
1.8
Time pressure
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
Competition
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
2.7
2.6
2.5

Appendix 5. *Blinder–Oaxaca decomposition – Housework*

	Female-typed Housework						Male-typed Housework					
	Period 1 (2003-2010) Total difference=-82.91			Period 2 (2011-2019) Total difference=-72.68			Period 1 (2003-2010) Total difference=21.38			Period 2 (2011-2019) Total difference=18.40		
	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction
Total difference	-13.63**	-70.27**	0.99	-21.32**	-64.43**	13.08**	-2.31*	20.11**	3.57	-0.89	15.82**	3.47
	(4.56)	(3.03)	(4.95)	(3.97)	(2.91)	(4.37)	(1.11)	(2.15)	(2.07)	(1.14)	(1.71)	(1.80)
Weekly work hours	-13.01**	22.13**	5.99**	-13.65**	46.41**	10.38**	0.28	-11.88**	-3.21**	-0.70	-4.66	-1.04
	(1.72)	(7.44)	(2.02)	(1.61)	(9.62)	(2.17)	(0.57)	(4.20)	(1.14)	(0.43)	(4.04)	(0.90)
Weekly earnings	-5.10**	9.16**	4.85**	-3.26**	7.32*	3.04*	-1.20**	2.36	1.25	-0.07	1.18	0.49
	(1.45)	(3.12)	(1.66)	(1.15)	(3.25)	(1.35)	(0.45)	(1.51)	(0.80)	(0.57)	(2.02)	(0.84)
Autonomy	-0.19	-0.35	0.46	0.03	-0.18	-0.09	0.08	0.02	-0.03	-0.00	0.15	0.08
	(0.36)	(0.33)	(0.44)	(0.08)	(0.20)	(0.12)	(0.10)	(0.18)	(0.23)	(0.03)	(0.12)	(0.08)
Irregular work schedule	0.21	1.30	-3.07	-1.14	-0.12	0.29	0.02	-0.12	0.28	0.33	-0.07	0.18
	(1.94)	(0.91)	(2.14)	(1.39)	(0.64)	(1.59)	(0.44)	(0.40)	(0.94)	(0.52)	(0.35)	(0.87)
Expected work hours	-0.83	0.14	-0.23	0.82	0.12	-0.25	-0.03	-0.71	1.18	-0.04	-0.05	0.11
	(1.55)	(1.20)	(1.99)	(1.15)	(0.69)	(1.49)	(0.54)	(0.77)	(1.27)	(0.42)	(0.40)	(0.87)
Time pressure	0.35	0.47	-0.69	-1.15*	-0.20	0.81	-0.22	-0.06	0.08	-0.16	-0.01	0.03
	(0.54)	(0.48)	(0.70)	(0.55)	(0.17)	(0.68)	(0.19)	(0.29)	(0.42)	(0.20)	(0.09)	(0.37)
Competition	-0.60	-0.17	0.25	-0.46	0.52	-1.37	-0.12	0.21	-0.31	-0.44	-0.36	0.95
	(1.21)	(0.99)	(1.47)	(1.07)	(0.52)	(1.36)	(0.32)	(0.51)	(0.75)	(0.53)	(0.38)	(1.00)
Age	4.56**	-70.34**	-3.14**	2.55**	-36.14*	-1.48*	-0.02	13.44	0.60	0.32	1.76	0.07
	(0.70)	(14.56)	(0.72)	(0.57)	(14.62)	(0.62)	(0.17)	(7.87)	(0.36)	(0.18)	(7.86)	(0.32)
Cohabiting	0.00	0.17	0.00	-0.01	0.65	-0.12	0.00	-0.29	-0.00	-0.03	-0.68	0.13
	(0.04)	(0.36)	(0.03)	(0.09)	(0.67)	(0.13)	(0.01)	(0.16)	(0.04)	(0.03)	(0.38)	(0.09)
Partner employed part-time	-3.02	0.18	1.13	-1.36	0.03	0.14	-0.80*	0.14	0.87	-0.40	0.17	0.76
	(1.93)	(0.33)	(2.05)	(1.86)	(0.43)	(1.94)	(0.39)	(0.12)	(0.75)	(0.39)	(0.13)	(0.61)
College and above	0.02	2.34	-0.20	-0.16	0.61	-0.10	0.02	-1.21	0.10	0.06	-3.30*	0.53*
	(0.15)	(2.20)	(0.20)	(0.36)	(2.76)	(0.45)	(0.05)	(1.28)	(0.11)	(0.11)	(1.50)	(0.25)
Race (White as reference group)												
Black	0.16	1.21	-0.13	-0.18	1.10	0.13	0.07	-0.72*	0.08	-0.05	-0.69*	-0.08
	(0.14)	(0.68)	(0.13)	(0.15)	(0.59)	(0.13)	(0.06)	(0.34)	(0.07)	(0.04)	(0.32)	(0.08)
Hispanic	0.23	-1.95*	-0.21	-0.13	-1.22	0.08	-0.08	-1.36**	-0.15	0.05	-0.35	0.02
	(0.16)	(0.95)	(0.16)	(0.13)	(1.17)	(0.11)	(0.06)	(0.45)	(0.10)	(0.05)	(0.61)	(0.05)

Others	-0.11	-1.23*	0.14	-0.19	-0.52	0.08	0.04	-0.68**	0.08	0.07*	-0.58**	0.08
	(0.09)	(0.52)	(0.11)	(0.11)	(0.64)	(0.10)	(0.03)	(0.23)	(0.06)	(0.03)	(0.22)	(0.05)
Having children aged 0-5	0.28	-1.51	-0.08	-0.00	3.66	0.21	-0.09	-1.58	-0.09	0.00	-1.65	-0.09
	(0.17)	(2.36)	(0.14)	(0.10)	(2.25)	(0.16)	(0.05)	(1.45)	(0.09)	(0.04)	(1.30)	(0.09)
having children aged 6-12	0.08	-2.73	-0.05	-0.23	-2.84	0.12	0.00	0.65	0.01	-0.01	-2.87*	0.12
	(0.10)	(2.45)	(0.07)	(0.14)	(2.54)	(0.12)	(0.01)	(1.42)	(0.03)	(0.03)	(1.31)	(0.08)
having children aged 13-17	-0.22	-5.54*	0.23	-0.04	-2.32	0.04	-0.01	-0.37	0.02	0.00	0.67	-0.01
	(0.16)	(2.44)	(0.17)	(0.07)	(2.33)	(0.07)	(0.03)	(1.51)	(0.06)	(0.01)	(1.23)	(0.03)
Weekend	-0.34	-8.37**	0.12	-0.70	-4.29**	0.13	-0.06	6.61**	-0.10	-0.09	7.46**	-0.23
	(0.67)	(1.32)	(0.24)	(0.63)	(1.31)	(0.13)	(0.13)	(0.86)	(0.19)	(0.08)	(0.78)	(0.21)
Occupation (Management as reference group)												
Professional and related	-0.74	0.81	-0.25	-0.24	1.11	-0.41	-0.05	1.81	-0.55	-0.21	-1.83	0.68
	(0.52)	(2.06)	(0.63)	(0.64)	(2.17)	(0.80)	(0.16)	(1.17)	(0.36)	(0.20)	(1.20)	(0.45)
Service	-0.39	-0.11	0.03	-0.80*	-2.06	0.56	0.04	1.64*	-0.43*	0.01	-0.27	0.07
	(0.29)	(1.33)	(0.35)	(0.33)	(1.33)	(0.38)	(0.09)	(0.74)	(0.21)	(0.07)	(0.72)	(0.19)
Sales and office	0.29	3.29	-1.64	-0.49	-0.91	0.39	0.43	1.34	-0.67	0.06	-1.21	0.52
	(0.84)	(2.17)	(1.09)	(0.56)	(1.60)	(0.69)	(0.26)	(1.17)	(0.59)	(0.15)	(0.84)	(0.36)
Construction and maintenance	3.96	-0.10	-1.82	-4.12	0.23	3.83	-0.50	0.18**	3.20**	0.54	-0.02	-0.32
	(3.65)	(0.21)	(3.74)	(2.71)	(0.17)	(2.80)	(0.58)	(0.06)	(0.92)	(0.94)	(0.07)	(1.11)
Production and transportation	1.13	-0.43	-1.06	3.53*	-1.01*	-3.14*	-0.15	0.63*	1.55*	-0.12	0.16	0.51
	(1.15)	(0.51)	(1.28)	(1.44)	(0.50)	(1.57)	(0.53)	(0.31)	(0.77)	(0.29)	(0.20)	(0.62)
Survey years												
2004	0.04	0.66	-0.05				-0.04	0.25	-0.02			
	(0.07)	(1.08)	(0.10)				(0.04)	(0.75)	(0.06)			
2005	-0.10	0.06	-0.01				-0.05	-1.12	0.19			
	(0.18)	(1.35)	(0.23)				(0.05)	(0.84)	(0.15)			
2006	-0.03	0.79	0.07				0.05	-1.80	-0.16			
	(0.11)	(1.49)	(0.14)				(0.05)	(0.95)	(0.13)			
2007	-0.03	2.70	0.08				0.01	-0.68	-0.02			
	(0.08)	(1.68)	(0.15)				(0.02)	(1.08)	(0.05)			
2008	-0.01	0.29	0.01				0.01	-1.39	-0.04			
	(0.04)	(1.56)	(0.04)				(0.02)	(0.99)	(0.08)			
2009	-0.15	3.42*	0.20				0.01	-1.06	-0.06			
	(0.16)	(1.50)	(0.21)				(0.02)	(0.99)	(0.08)			

2010	-0.04	1.20	0.08				0.03	-1.33	-0.09			
	(0.09)	(1.52)	(0.12)				(0.03)	(0.94)	(0.10)			
2012				-0.03	0.23	0.01				-0.01	-0.48	-0.03
				(0.05)	(0.73)	(0.05)				(0.02)	(0.37)	(0.04)
2013				-0.01	-0.26	-0.02				-0.01	-0.10	-0.01
				(0.06)	(0.84)	(0.07)				(0.02)	(0.47)	(0.04)
2014				-0.00	1.18	0.00				-0.00	-0.17	-0.00
				(0.06)	(0.87)	(0.07)				(0.00)	(0.45)	(0.01)
2015				-0.01	0.37	0.01				-0.00	-0.07	-0.00
				(0.04)	(0.87)	(0.03)				(0.01)	(0.46)	(0.01)
2016				0.00	0.40	-0.00				0.00	-0.39	0.00
				(0.01)	(0.96)	(0.02)				(0.00)	(0.51)	(0.02)
2017				0.09	1.43	-0.14				0.01	0.18	-0.02
				(0.10)	(0.98)	(0.13)				(0.03)	(0.58)	(0.06)
2018				-0.00	-0.35	0.00				0.00	0.15	-0.00
				(0.01)	(0.96)	(0.02)				(0.03)	(0.50)	(0.01)
2019				0.04	1.44	-0.05				0.01	0.08	-0.00
				(0.08)	(1.09)	(0.10)				(0.02)	(0.63)	(0.02)
Intercept		-27.77			-78.81**			17.19			23.67*	
		(20.78)			(19.94)			(12.58)			(10.92)	

Note: Observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses.
* p < .05. ** p < .01.

Appendix 6. *Blinder–Oaxaca decomposition – childcare*

	Care-based childcare						Interaction-based childcare					
	Period 1 (2003-2010) Total difference=-26.01			Period 2 (2011-2019) Total difference=-23.40			Period 1 (2003-2010) Total difference=-6.97			Period 2 (2011-2019) Total difference=-5.30		
	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction	Composition	Behaviors	Interaction
Total difference	-9.78**	-23.07**	6.84*	-10.41**	-19.47**	6.48**	-4.79*	-4.49**	2.31	-5.70**	-2.06	2.47
	(2.77)	(1.69)	(2.97)	(1.80)	(1.48)	(1.95)	(2.12)	(1.66)	(2.47)	(1.41)	(1.55)	(1.74)
Weekly work hours	-6.95**	18.92**	5.12**	-6.22**	13.38**	2.99**	-4.91**	7.10	1.92	-4.90**	10.61**	2.37**
	(0.90)	(4.01)	(1.09)	(0.93)	(4.73)	(1.06)	(0.74)	(3.62)	(0.98)	(0.63)	(3.83)	(0.86)
Weekly earnings	-0.00	1.28	0.68	0.48	-0.21	-0.09	-0.57	0.74	0.39	0.43	-0.27	-0.11
	(0.72)	(1.69)	(0.89)	(0.59)	(1.77)	(0.73)	(0.56)	(1.39)	(0.74)	(0.52)	(1.64)	(0.68)
Autonomy	0.00	-0.00	0.01	-0.08	0.07	0.04	0.33	0.20	-0.26	0.03	-0.24*	-0.12
	(0.18)	(0.17)	(0.23)	(0.07)	(0.10)	(0.06)	(0.17)	(0.17)	(0.22)	(0.04)	(0.11)	(0.09)
Irregular work schedule	-0.83	-0.25	0.59	-0.42	0.05	-0.12	0.62	0.15	-0.34	0.84	0.38	-0.94
	(0.76)	(0.40)	(0.94)	(0.71)	(0.34)	(0.83)	(0.67)	(0.36)	(0.85)	(0.57)	(0.31)	(0.77)
Expected work hours	-0.37	0.51	-0.84	1.05	0.57	-1.23	-0.68	-0.62	1.02	0.24	0.05	-0.11
	(0.81)	(0.69)	(1.14)	(0.64)	(0.38)	(0.83)	(0.69)	(0.64)	(1.06)	(0.54)	(0.36)	(0.78)
Time pressure	0.09	-0.11	0.16	-0.41	-0.02	0.08	-0.34	-0.24	0.35	-0.25	0.07	-0.28
	(0.28)	(0.28)	(0.40)	(0.27)	(0.09)	(0.35)	(0.22)	(0.23)	(0.34)	(0.21)	(0.08)	(0.33)
Competition	-0.00	0.06	-0.09	-0.14	-0.22	0.58	0.74	0.54	-0.81	0.35	0.15	-0.40
	(0.63)	(0.55)	(0.81)	(0.57)	(0.29)	(0.75)	(0.51)	(0.46)	(0.68)	(0.47)	(0.26)	(0.67)
Age	-0.77**	12.39	0.55	-1.04**	29.54**	1.21**	-0.89**	22.92**	1.02**	-0.83**	8.58	0.35
	(0.27)	(7.39)	(0.33)	(0.29)	(8.14)	(0.36)	(0.22)	(7.35)	(0.34)	(0.23)	(6.73)	(0.28)
Cohabiting	0.00	-0.23	-0.00	0.06	0.21	-0.04	-0.00	-0.03	-0.00	0.03	0.32	-0.06
	(0.00)	(0.17)	(0.04)	(0.06)	(0.35)	(0.07)	(0.01)	(0.18)	(0.00)	(0.04)	(0.34)	(0.07)
Partner employed part-time	-1.87	0.25	1.51	-1.08	0.12	0.55	-0.72	0.16	1.01	0.88	-0.23	-1.06
	(1.07)	(0.19)	(1.15)	(0.73)	(0.18)	(0.80)	(0.87)	(0.16)	(0.96)	(0.82)	(0.20)	(0.89)
College and above	-0.41**	-2.89*	0.25	-0.62**	-1.74	0.28	-0.28**	-1.04	0.09	-0.44**	-1.39	0.22

	(0.14)	(1.21)	(0.13)	(0.20)	(1.56)	(0.25)	(0.10)	(1.06)	(0.09)	(0.17)	(1.36)	(0.22)
Race (White as reference group)												
Black	0.05	-0.12	0.01	-0.05	-0.09	-0.01	0.08	0.17	-0.02	-0.11	0.43	0.05
	(0.05)	(0.36)	(0.04)	(0.05)	(0.32)	(0.04)	(0.07)	(0.31)	(0.04)	(0.09)	(0.26)	(0.05)
Hispanic	-0.13	-0.32	-0.03	0.05	-0.43	0.03	-0.11	0.36	0.04	0.10	1.65**	-0.12
	(0.09)	(0.42)	(0.05)	(0.05)	(0.58)	(0.05)	(0.07)	(0.38)	(0.05)	(0.09)	(0.52)	(0.10)
Others	0.02	-0.39	0.04	0.08	0.17	-0.02	-0.03	-0.39	0.04	0.02	0.71*	-0.10
	(0.04)	(0.34)	(0.05)	(0.05)	(0.30)	(0.04)	(0.03)	(0.27)	(0.04)	(0.03)	(0.32)	(0.07)
Having children aged 0-5	0.87*	-7.48**	-0.41	0.88*	-5.97**	-0.34	0.36*	-0.41	-0.02	0.46*	-0.83	-0.05
	(0.43)	(1.34)	(0.21)	(0.41)	(1.37)	(0.18)	(0.18)	(1.19)	(0.07)	(0.22)	(1.17)	(0.07)
having children aged 6-12	0.09	-1.90	-0.03	-0.25	-3.69**	0.15	0.01	-0.84	-0.01	0.02	-0.60	0.02
	(0.11)	(1.38)	(0.05)	(0.13)	(1.40)	(0.09)	(0.02)	(1.15)	(0.03)	(0.04)	(1.30)	(0.05)
having children aged 13-17	0.19	1.11	-0.05	0.07	-0.20	0.00	0.16	-1.77	0.07	0.06	-0.89	0.02
	(0.13)	(1.31)	(0.06)	(0.11)	(1.22)	(0.02)	(0.11)	(1.10)	(0.06)	(0.09)	(1.03)	(0.03)
Weekend	0.04	3.46**	-0.05	0.07	2.45**	-0.08	0.02	2.41**	-0.04	-0.02	0.67	-0.02
	(0.08)	(0.66)	(0.10)	(0.06)	(0.65)	(0.07)	(0.03)	(0.57)	(0.07)	(0.02)	(0.61)	(0.03)
Occupation (Management as reference group)												
Professional and related	-0.40	-0.62	0.19	-0.35	-1.77	0.65	-0.13	0.40	-0.12	-0.49	-0.96	0.36
	(0.28)	(1.24)	(0.38)	(0.36)	(1.26)	(0.47)	(0.23)	(1.05)	(0.32)	(0.32)	(1.16)	(0.43)
Service	-0.10	-0.90	0.24	-0.31	-1.61*	0.44*	0.03	0.30	-0.08	-0.04	0.43	-0.12
	(0.15)	(0.71)	(0.19)	(0.17)	(0.76)	(0.22)	(0.11)	(0.61)	(0.16)	(0.13)	(0.69)	(0.19)
Sales and office	0.32	-0.51	0.26	-0.55	-1.90*	0.82	0.27	0.66	-0.33	-0.16	-0.50	0.22
	(0.45)	(1.26)	(0.63)	(0.32)	(0.96)	(0.42)	(0.36)	(1.10)	(0.55)	(0.26)	(0.84)	(0.36)
Construction and maintenance	1.31	-0.10	-1.84	-0.70	0.00	0.04	1.14	-0.09	-1.61	-1.26	0.07	1.09
	(2.34)	(0.13)	(2.39)	(1.02)	(0.07)	(1.09)	(1.79)	(0.10)	(1.84)	(0.72)	(0.05)	(0.83)
Production and transportation	-0.97	0.19	0.47	-0.82	0.15	0.48	0.09	-0.02	-0.06	-0.71	0.39*	1.21*
	(0.51)	(0.26)	(0.63)	(0.49)	(0.20)	(0.61)	(0.43)	(0.22)	(0.54)	(0.42)	(0.18)	(0.57)
Survey years			-0.11						-0.03			

2004	0.06	1.34*	(0.10)				-0.01	0.39	(0.05)				
	(0.06)	(0.60)	-0.29				(0.03)	(0.50)	-0.14				
2005	0.16	1.72*	(0.15)				0.00	0.82	(0.11)				
	(0.10)	(0.70)	0.16				(0.06)	(0.58)	0.09				
2006	-0.09	1.89*	(0.12)				-0.01	1.04	(0.08)				
	(0.08)	(0.81)	0.06				(0.04)	(0.64)	-0.00				
2007	-0.02	2.09*	(0.11)				0.02	-0.17	(0.02)				
	(0.04)	(0.91)	0.04				(0.04)	(0.73)	0.03				
2008	-0.01	1.61	(0.09)				-0.00	1.30	(0.07)				
	(0.03)	(0.87)	0.09				(0.01)	(0.67)	0.06				
2009	-0.01	1.61	(0.10)				0.02	1.07	(0.07)				
	(0.04)	(0.87)	0.14				(0.03)	(0.68)	0.03				
2010	-0.08	2.12**	(0.13)				0.02	0.51	(0.05)				
	(0.07)	(0.79)				-0.01	(0.03)	(0.63)				0.01	
2012				0.01	-0.12	(0.02)				0.01	0.22	(0.03)	
				(0.02)	(0.40)	-0.02				(0.02)	(0.38)	-0.02	
2013				0.04	-0.27	(0.04)				0.03	-0.29	(0.04)	
				(0.04)	(0.45)	-0.00				(0.03)	(0.43)	-0.00	
2014				0.00	-0.64	(0.04)				0.00	-0.79	(0.05)	
				(0.02)	(0.43)	-0.01				(0.04)	(0.44)	-0.01	
2015				0.01	-0.35	(0.02)				0.01	-0.46	(0.03)	
				(0.04)	(0.49)	0.00				(0.02)	(0.43)	0.00	
2016				-0.00	-0.59	(0.04)				-0.00	-0.27	(0.02)	
				(0.05)	(0.49)	0.04				(0.04)	(0.47)	0.04	
2017				-0.11	-0.41	(0.06)				-0.00	-0.39	(0.05)	
				(0.08)	(0.57)	0.01				(0.03)	(0.46)	0.00	
2018				-0.01	-1.32*	(0.09)				-0.00	-0.97	(0.06)	
				(0.09)	(0.56)	0.06				(0.05)	(0.54)	0.03	

2019		-0.07	-1.71**	(0.11)		-0.02	-0.77	(0.05)
		(0.13)	(0.63)			(0.05)	(0.53)	
Intercept	-57.81**		-42.94**		-40.13**		-16.94	
	(11.37)		(11.23)		(10.45)		(9.74)	

Note: Observations for Period 1 and Period 2 are 11,939 and 12,701, respectively. Standard errors are in parentheses.
* p < .05. ** p < .01.