Title

The Balancing Act: A Mixed-Method Study of Working Mothers and the Gendered Labor at Home

Author

Clague, Angela

Publication Date

2024

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA

Los Angeles

The Balancing Act:

A Mixed-Method Study of Working Mothers and the Gendered Labor at Home

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Sociology

by

Angela Kay Clague

2024

ABSTRACT OF THE DISSERTATION

The Balancing Act:

A Mixed-Method Study of Working Mothers and the Gendered Labor at Home

by

Angela Kay Clague

Doctor of Philosophy in Sociology

University of California, Los Angeles, 2024

Professor Megan McDonnell Sweeney, Co-Chair

Professor Abigail Cope Saguy, Co-Chair

Since the 1960s, women's role in the family has shifted from primarily wife and mother to also include economic contributor, particularly among non-Hispanic white women in the middle class. Yet men's role in the family has remained largely the same. Women are thus tasked with juggling both domestic and market work responsibilities while men can focus more exclusively on their careers, popularizing terms like *the second shift* and the *motherhood penalty*, which describe the additional domestic labor women are expected to do at home after a day of paid work and the lasting disadvantage motherhood has on women's careers. To make matters more dire, the United States has one of the least supportive public safety nets for families among developed countries in the world and the few resources available were compromised during the

COVID-19 pandemic. In this dissertation, I investigate the issue of parenthood, gender, domestic labor, and paid labor using a combination of data sources, methods, and time periods.

The first chapter analyzes the Panel Study of Income Dynamics (PSID), a national probability sample following American families and their descendants over time, using fixed effects regression. I examine change over time in the wage and labor supply effects of children, partnership status, and housework hours. I rely on a classic demographic approach to studying social change, comparing the experiences of successive birth cohorts: a sample of men and women born from 1947 through 1962 (Baby Boomers) to those born from 1965 through 1985 (Generation X). My findings suggest that the negative association between motherhood, partnership status, housework hours, and women's wages have declined for women, but that these family roles remain negatively associated with women's labor supply. In contrast, the wage premium associated with fatherhood, and the absence of an association between men's housework hours and men's wages, did not significantly change across cohorts of men. Taken together, these results suggest persistent gender-based inequality in labor outcomes.

In the second chapter, I interviewed 24 working mothers who support their families financially from December 2020 to March 2021 about how they share domestic labor with their husbands during the COVID-19. I seek to understand how these mothers describe and make sense of their domestic arrangements. The mothers I interviewed described fathers doing more childrearing than mothers, mothers doing more *cognitive domestic labor*—or planning and organizing the family—than fathers, and housework being either shared or delegated to one parent. How these mothers talked suggested *neo-egalitarian* attitudes towards appropriate gender roles for men and for women. Mothers whose husbands lost their jobs during COVID-19 perceived domestic gender equality as fluctuating throughout the marriage, such that men's

unemployment was a time when domestic gender inequality was acceptable. Mothers who were primary or sole earners since before the pandemic expected one parent to specialize in primary caregiving and one parent to specialize in market work, but they believed that either a man or a woman could fulfill each role. This paper introduces a novel *gender ideology*, or emotional understanding of what an appropriate family role is for a man and for a woman, for a small but growing population of women.

In the final chapter, I leverage census-level data from the American Community Survey (ACS) to examine how the average commute time in the public use microdata area (PUMA) where women live influences maternal wages and labor supply, using ordinary least squares (OLS) regression and two-level random effect hierarchical linear models. In the United States, family is typically seen as a private issue, but this study is the first to investigate whether supportive public infrastructure and communities enables mothers to maintain a career. My findings suggest the largest wage and labor supply gaps between mothers and childless women are in PUMAs with long average commute times. This study provides evidence that where women live constrains their career opportunities after having children.

The dissertation of Angela Kay Clague is approved.

Wei-hsin Yu

Chaitra Hardison

Patrick Clement Heuveline

Nelson Lim

Abigail Cope Saguy, Committee Co-Chair

Megan McDonnell Sweeney, Committee Co-Chair

University of California, Los Angeles

2024

DEDICATION

This dissertation—about mothers—is dedicated to my mother, Luanne Kay Clague, who supports me in everything I do.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

I would like to thank my dissertation committee chairs, Megan McDonnell Sweeney and Abigail Cope Saguy, for their guidance, support, and training in the program. My writing and research skills have undergone considerable improvement since starting the program, which I credit to both of them. I also want to thank my dissertation committee members—Wei-hsin Yu, Chaitra Hardison, Nelson Lim, and Patrick Clement Heuveline—for their comments on and support for my dissertation. In particular, I want to thank Wei-hsin Yu for providing feedback on my writing; Chaitra Hardison for her training on how to develop surveys and interview protocols; Nelson Lim for training me how to design clear and professional presentations, and for his advice on what research topic to pursue; and Patrick Heuvline for supporting my training in demography. I am grateful for my dissertation chairs and committee members for supporting my professional development.

I want to provide a special thanks to my RAND colleagues (not included in my committee) who have provided advice, encouragement, and inspiration during my doctoral studies—Tracy Krueger, Heather Krull, Jason Etchegaray, Larry Hanser, Marek Posard, Laura Miller, Malcolm Williams, Allison Ober, Lindsay Daugherty, Jennifer Li, Stephanie Holliday, Noreen Clancy, Stuart Olmstead, Sean Robson, Cara Sims, Susan Gates, Coreen Farris, Maria Lytell, Nicole Eberhart, Michael Pollard, and Phil Armour. I also want to give a special thanks to a former RAND colleague, Esther Friedman, who has provided support and professional advice throughout my doctoral studies.

I am grateful for the love and support I've received from my family—Luanne, David, Jason, Partow, and Cyrus Clague, and Don and Opal Cooks. I am also exceedingly grateful for the love and support from my constant companion, Tom, my British Shorthair cat. Finally, I

want to thank friends that have helped me along the way, including Zachary Kabb, Sara Duhachek-Muggy, Margot Brooks, Jackie Torres, and Sheena Rhine.

ANGELA KAY CLAGUE

PhD Candidate in the Department of Sociology
University of California, Los Angeles

PROFESSIONAL EXPERIENCE

University of California, Los Angeles Department of Sociology	
Teaching Assistant	2019-2022
Research Assistant	2018-2019
RAND Corporation	
Adjunct Summer Associate	2020-2021
Summer Associate	2020
Research Assistant	2015-2017
University of California, Los Angeles, Department of Psychology	
Graduate Research Coordinator	2019-2020
West Los Angeles VA Medical Center	
Program Analyst	2019
Columbia University, Department of Sociology	
Lead Research Assistant	2014-2015
Columbia Business School	
Research Assistant	2013
Family Care Network Incorporated	
Web Research and Communications (with CRD) Intern	2013

EDUCATION

University of California, Los Angeles	
Ph.D., Sociology	Expected 2024
C.Phil., Sociology	2021
M.A., Sociology	2019
Columbia University, Columbia College	
B.A., Sociology	2015

MANUSCIRPTS UNDER REVIEW

Clague, Angela K. How Did Telecommuting Fathers Navigate Work and Family Responsibilities During the First Year of the COVID-19 pandemic? Revise & Resubmit at *Social Currents*.

Heuveline, Patrick, and **Angela K. Clague**. Parental Loss and Mental Health in post-Khmer-Rouge Cambodia. Revise & Resubmit at *Population Research and Policy Review*.

Clague, Angela K. The Neo-Egalitarian Gender Ideology: How Breadwinner Mothers Made Sense of Domestic Gender Roles During COVID-19. Under Review at *Sociological Perspectives*.

GRANTS AND AWARDS

University of California, Los Angeles

Dissertation Year Fellowship, $38,041.	2023
Department of Sociology Summer Funding Award, $2,000.	2022
Department of Sociology Graduate Student Fellowship, $24,756.	2021-2022
Graduate Research Mentorship Award, $37,272.	2020-2021
Department of Sociology Summer Stipend, $6,000.	2020
Graduate Summer Research Mentorship Award, $6,000.	2018
Department of Sociology Graduate Student Fellowship, $37,918.	2017-2018

National Science Foundation

Honorable Mention, Graduate Research Fellowship Program (GRFP)	2019

National Institute of Child Health & Human Development (NICHD)

Trainee, California Center for Population Research (CCPR), $30,224.	2018-2019

Columbia University

Departmental Honors in Sociology	2015

PROFESSIONAL SERVICE

University of California, Los Angeles

Graduate Senior Thesis Mentor	2022-2023
Family Working Group Coordinator	2018-2020

INTRODUCTION

Since the 1960s, women have joined the labor force in numbers unheard of in prior decades, known as the "Gender Revolution" (Goldscheider et al., 2015). The "Gender Revolution," however, is incomplete. The accelerated narrowing of earnings differentials by gender realized in the 1960s, 1970s and 1980s has since stalled, and a significant gender pay gap remains (Blau & Winkler, 2018).

What explains this unfinished revolution? Parenthood is perhaps where gender inequality is most pronounced. Research has found that after becoming mothers, women experience a *motherhood penalty*, mostly typically operationalized as a decline in hourly wages (Waldfogel, 1997; Budig & England, 2001; Anderson, Binder & Krause, 2002; Glauber, 2007; Gough & Noonan, 2013) whereas men enjoy a *fatherhood premium*, or an increase in hourly wages, following the birth of their first child (Hodges and Budig 2010; Killewald 2013; Weeden, Cha and Bucca 2016).

The motherhood wage penalty is only partially explained by human capital, labor market experience and part-time work status, leaving much of the penalty unexplained. Several possible explanations have been offered, such as employer bias against mothers (Benard, Paik & Correll, 2007) and the tension between domestic and market responsibilities imposed on women, but not men (Becker, 1991; Hochschild, 1989). Indeed, women contend with conflicting cultural norms of *intensive mothering* (Hays 1996)—where mothers are expected to invest considerable time, emotional labor, and money into childrearing—and the *ideal worker* (Acker 1990)—where the best workers are presumed to have few responsibilities outside of work.

In this dissertation, I investigate critical unanswered questions about working motherhood from two methodological angles: semi-structured interviews and statistical analysis

of population representative surveys. I address three topics yet to be sufficiently studied. First, I use the Panel Study of Income Dynamics (PSID), a population representative longitudinal survey of American families, to examine whether the motherhood wage penalty, fatherhood wage premium and the negative association between time spent doing housework and market work (labor force participation and hourly wages) has changed between two successive birth cohorts. Next, I analyze 24 surveys and semi-structured interview data I collected concerning how mothers who earn most or all the family's income describe and make sense of the division of labor in the home. Finally, I leverage census data from the American Community Survey (ACS) to examine the extent to which county-level factors, such as average commute time, moderate the motherhood penalty.

Chapter 1:

Family Wage Penalties and Premiums and the Reversal of the Gender Gap in Education

Angela K. Clague

Abstract: Women once had fewer years of education than men, but now outpace men in college completion. Despite this remarkable educational shift, research has yet to investigate change in the wage effects of children, partnership status, and housework hours across the two birth cohorts that straddle this *reversal of the gender gap of education*. I use fixed effects regression to estimate change across a sample of men and women born from 1949 to 1964 to those born from 1965 to 1980, drawing data from the Panel Study of Income Dynamics. Findings suggest that wage penalties associated with motherhood, partnership status, and housework hours declined across cohorts for women, but a supplemental analysis reveals an association between such family roles and women's selection into the labor force. Conversely, the wage premium associated with fatherhood, and the absence of an association of men's wages with men's housework hours, has remained stable across birth cohorts. Taken together, results support the existence of a stalled gender revolution.

Keywords: Motherhood penalty; Fatherhood premium; Household labor; Family; Wages

1. Introduction

Women's labor force participation rose dramatically from the 1950s to the 1970s in the U.S.—a demographic shift contributing to the "gender revolution" (England, 2010; Goldscheider, Bernhardt, & Lappegård, 2015). Yet, there remain critical challenges to achieving economic parity between men and women because unequal family obligations have gendered wage consequences. Following the birth of a child, women tend to experience a *motherhood penalty*, typically operationalized as a decline in wages, whereas men tend to enjoy a *fatherhood premium*, or an increase in wages (Andersen, Binder & Krause, 2002; Budig & England, 2001; Glauber, 2008; Gough & Noonan, 2013; Hodges & Budig, 2010; Killewald, 2013). Marriage is associated with higher wages for men, but the evidence is mixed for women (Budig & England, 2001; Juhn & McCue, 2016b, 2016b; Killewald & Gough, 2013; Loury, 1997; McDonald, 2020). Women's time spent on housework is associated with a wage reduction, but the evidence is inconclusive for men (Hersch & Stratton, 1994, 1997, 2000; Noonan, 2001). However, most studies do not examine whether the wage effects of family roles for women and men have changed in parallel with critical demographic shifts.

Drawing on data from the Panel Study of Income Dynamics (PSID), I investigate change in family wage penalties and premiums across the birth cohorts that straddle both sides of the *reversal of the gender gap in education*, when women historically overtook men in college completion (Van Bavel, Schwartz, & Esteve, 2018). Ryder (1965) classically argued for evaluating social change using successive birth cohorts, because each cohort has shared exposure to historical events and cultural influences at formative periods of development. I compare a sample of women and men born from 1949 to 1964 (members of the Baby Boom), when women trailed men in college completion, to those born from 1965 to 1980 (members of the Generation

X),[1] when women overtook men in college completion (Bauman, 2016). This study is the first to consider parenthood, partnership status, and housework hours together in the framework of a single study, including a main analysis of the wage effects of these family roles followed by a supplementary analysis investing how these family roles are associated with labor force participation.

2. Background

2.1. Theoretical Explanations for Household Specialization

Previous research partially attributes wage penalties and premiums associated with parenthood, partnership status, and housework hours to gendered family roles delegating domestic labor to women and paid labor to men, referred to as *household specialization* (Becker, 1985, 1991). Becker (1991) argues that different-sex couples divide paid and domestic labor based on economic comparative advantage. According to this perspective, men tend to specialize in paid labor because they tend to outearn women. Women tend to specialize in childrearing and housework because different-sex couples tend to perceive that women have more domestic skills than do men, arising from their role as mothers.

In contrast, gender scholars posit that in doing or avoiding domestic labor, women and men are also "doing gender" (West and Zimmerman 1987), meaning their behavior is shaped by others' expectations of how women or men are supposed to behave. Indeed, both men and women tend to perceive providing financially as men's primary responsibility to the family, such that specializing in paid labor is an enactment of good fathering (Townsend, 2002). Many middle- and upper-class women follow *intensive mothering* norms, which defines good mothering as spending considerable time, money, and effort on childrearing, leaving little room

[1] Henceforth, I use cohort labels as a convenient way to refer to these birth cohorts (Cohen, 2021).

for paid labor (Damaske, 2013; Blair-Loy, 2003; Hays, 1996). Women also tend to be responsible for feminine household tasks, such as cooking, household cleaning, and mental management of the home, which are more routine than masculine household tasks, such as yardwork and car repairs, prompting women to average more time on housework than men (Bianchi et al., 2000, 2012; Daminger, 2019; Kan, Sullivan & Gershuny, 2011; Noonan, 2001).

2.2. Motherhood Wage Penalty and Fatherhood Wage Premium

Although the theoretical explanations for household specialization remain contested, there is consensus that household specialization adversely impacts mothers', but not fathers' wages. For example, women, and not men, reduce their paid work hours after having children (Killewald & García-Manglano, 2016). Indeed, much of the motherhood wage penalty is explained by differences in years of work experience and work hours between mothers and childless women (Anderson, Binder, & Krause, 2003; Budig & England, 2001; Budig & Hodges, 2010; Cha & Weeden, 2014; Weeden et. al., 2016). Some mothers pursue low-effort jobs that pay less, in return for family-friendly accommodations, such as flexible hours (Becker, 1985). Others find the workplace incompatible with motherhood and "opt-out" of paid labor (Stone, 2007), which has been shown to make re-entry into the labor force more challenging than after a spell of unemployment (Weisshaara, 2018).

By contrast, fatherhood tends to reinforce men's commitment to their careers. Fatherhood is associated with greater job tenure than childlessness, and there is some evidence that non-Hispanic white men's work hours increase after having children (Glauber, 2008; Lundberg & Rose, 2002; Millimet, 2000). Kmec (2011) found that fathers were more likely than childless men to report that their effort at work is motivated by providing for their families, although the self-reported work effort of fathers and childless men in this study did not significantly differ.

Employers may also be biased against mothers and in favor of fathers. Employers may prefer fathers, as potential financial providers, to childless men (Correll, Benard, & Paik, 2007; Hodges & Budig, 2010). Employers may also prefer childless women, with fewer domestic responsibilities, to mothers (Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008). Indeed, employers tend to perceive mothers as less competent than men and childless women, regardless of their ability and behaviors (Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008; Ridgeway & Correll, 2004).

In addition, women and men who become parents, and remain in the labor force, may be systematically different from other women and men in terms of characteristics such as work commitment and motivation. For example, women have been shown to initiate childbearing when their wages are low (Lundberg & Rose, 2000). In contrast, men tend to initiate marriage and childbearing when they experience periods of wage growth, such as delaying marriage until achieving financial stability (Gibson-Davis, Edin, & McLanahan, 2005; Loughran and Zissimopoulos, 2009). Women may also select marital partners based on personal traits that predict high earnings, such as conscientiousness (Sweeney & Cancian, 2004; Sweeney, 2002). Yet, most studies of the motherhood wage penalty and fatherhood wage premium estimate the association of children with wages, and neglect selectivity.

2.3. Partnership Status and Housework Hours

Other literature considers the association between partnership and wages. For women, the evidence that wages vary by partnership status is mixed. Some studies find a marriage wage penalty for women, and larger motherhood wage penalties for married than for single mothers (Budig & England, 2001; Budig & Hodges, 2010; Juhn & McCue, 2016a, 2016b; Loughran & Zissimopoulos, 2009; Loury, 1997). This effect is perhaps because men's earnings can support

the family while mothers incur labor interruptions, in alignment with household specialization theory (Becker, 1985, 1991; Budig & Hodges, 2010). However, other studies suggest that women experience a marriage wage premium, but that the motherhood wage penalty does not differ by marital status (Killewald & Gough, 2013; Taniguchi, 1999).

For men, some studies suggest transition to marriage is associated with increases in men's work productivity and wages, in support of a marriage wage premium (Cohen, 2002; Gray, 1997). Indeed, Killewald (2013) found 15 percent of the fatherhood wage premium is explained by changes to work experience, occupation, and industry, but only for married fathers who co-reside with their children, when the financial provider identity is reinforced. However, other scholars argue that men who are likely to marry also tend to be on career trajectories with high wage growth (Dougherty, 2006; Ludwig & Brüderl, 2017).

Finally, a smaller body of research considers the association of wages with housework hours. The most significant rise in women's housework hours occurs at motherhood (Baxter, Hewitt, & Haynes, 2008; Pepin, Sayer, & Casper, 2018), and women's housework hours have been shown to partially explain the motherhood wage penalty for non-Hispanic white women (Parrott, 2014). One possible explanation for the negative association between women's housework hours and women's wages is that housework hours adversely impact workplace productivity. According to Becker (1985), individuals have a finite supply of time and energy to devote to paid and unpaid labor, such that increases in household labor will detract from effort devoted to paid labor. However, this theory is contested (Bielby & Bielby, 1988).

Housework hours tend to be less important for wage premiums of men than women. Men's housework hours tend not to change as men transition to marriage and fatherhood (Baxter, Hewitt, & Haynes, 2008; Sanchez & Thompson, 1997). Men's housework hours do not explain

wage differences between married and unmarried men, nor do men's housework hours explain the fatherhood wage premium (Hersch & Stratton, 2000; Pollmann-Schult, 2011). There is some evidence, however, that women's housework benefits men's wages (Matteazzi & Scherer, 2020), particularly among high-wage men who are sole breadwinners (Blom & Cooke, 2023). However, it is unknown if women's housework hours explains the fatherhood wage premium.

2.4. The Baby Boom and Generation X Birth Cohorts

I selected the Baby Boom (born between 1949 and 1964) and Generation X (born between 1965 and 1980) birth cohorts because there is reason to believe that wage penalties and premiums associated with family roles and responsibilities may have changed between them. The Baby Boom cohort may be distinctive from other birth cohorts because of its unprecedented size, given the sharp rise in birth rates after World War II, and lower labor force participation among women than in subsequent and in following generations. Indeed, Easterlin (1961, 1969, 1973) hypothesized that women's labor supply is inversely proportional to the size of the birth cohort because there is greater competition for jobs in large than in small birth cohorts, drawing inference from trends in the Baby Boom.

The Baby Boom also represents a transitional cohort of change in women's educational attainment because they were born before and entered adulthood during the reversal of the gender gap in education. Indeed, when members of the Baby Boom began to reach their twenties in the 1970s, women's college attainment and professional school enrollment rose dramatically, increasing women's economic returns for years of work experience (Goldin, 2006; Goldin, Katz, & Kuziemko, 2006). By the 1980s, when some members of the Baby Boom entered their thirties, scholars began to observe the historic reversal of the gender gap in education (Buchmann & DiPrete, 2006). As Baby Boom women's relative earning potential increased, their earnings

became increasingly important to marriage formation (Oppenheimer, 1988; Sweeney, 2002).

I selected members from Generation X because this birth cohort immediately follows the Baby Boom, allowing me to evaluate change across successive birth cohorts. The Generation X birth cohort is distinctive from the Baby Boom birth cohort because it is smaller and women's labor supply was higher. Baby Boom men and women also married and had children earlier than Generation X men and women (Goldin & Katz, 2002; Goldin, 2006; Goldscheider, Bernhardt, & Lappegård, 2015; Smock & Schwartz, 2020). Delaying marriage and children afforded Generation X women the opportunity to specialize in paid labor, demonstrated by the proportion of mothers in the labor force with a child under six rising dramatically from the 1970s to the 1990s (Casper & Bianchi, 2001).

While the Baby Boom represents a transitional cohort for change in women's educational attainment, Generation X represents the realization of change in women's educational attainment. Members of Generation X began entering their twenties and thirties in the 1990s, after the reversal of the gender gap in education. Hypogamous marriages, when wives have more education than husbands, were initially unstable. However, there was no longer an association between marriage hypogamy and divorce in the 1990s, suggesting these partnerships gradually became culturally acceptable (Schwartz & Han, 2014).

Although there are some hints of change in both birth cohorts, the gender revolution remains stalled because "the second half," when men and women contribute equally to domestic labor, is incomplete (Goldscheider, Bernhardt, & Lappegård, 2015). Women's housework hours have declined since the 1960s (Bianchi et al., 2000, 2012; Kan, Sullivan & Gershuny, 2011). Some scholars argue this trend indicates women are outsourcing housework at greater rates than before (Bianchi & Milkie, 2010; Craig et al., 2016). Men have increased the time they tend to

spend with their children and on housework since the 1960s, but gender-based gaps persist in time spent on domestic labor (Bianchi et al., 2000, 2012; Kan, Sullivan & Gershuny, 2011; Sayer, Bianchi, & Robinson, 2004). The marginal increases in men's domestic labor may be explained by the cultural expansion of the fatherhood role in the 1980s from solely providing financially to also contributing to domestic labor (Craig, 2006). Moreover, how different-sex couples divide domestic labor remains largely gender traditional, despite some movement towards gender egalitarianism (Pampel, 2011).

Some studies examine change over time in the motherhood wage penalty and fatherhood wage premium, but findings vary by data source. Research using longitudinal household surveys tend to find stability in the motherhood wage penalty from the 1970s to the 2010s in the U.S., estimating change across the 1944 to 1954 and 1958 to 1965 birth cohorts, and over three time periods: 1986 to 1995, 1996 to 2004, and 2006 to 2014 (Avellar & Smock, 2003; Jee, Misra, & Murray-Close, 2019). Although focusing on a different country context, one study analyzing longitudinal data in Norway found a reduction in the motherhood wage penalty between 1979 and 1996 (Petersen, Penner, & Høgsnes, 2014). However, the authors attribute this shift to a context-specific federal expansion in work-family policies. Research using census data tends to find a reduction in the U.S. motherhood wage penalty from 1968 to 2014, particularly for married and high-earning mothers for whom there is evidence the wage penalty has actually been eliminated (Buchmann & McDaniel, 2016; Glauber, 2018; Pal & Waldfogel, 2016; Weeden, Cha, & Bucca, 2016).

Studies investigating change in the U.S. fatherhood wage premium tend to be limited to census-based data, such as the Current Population Survey (CPS) and the American Community Survey (ACS). Analyses of the CPS from 1968 to 2014 suggest the U.S. fatherhood wage

premium increased in the 1990s (Glauber, 2018; Weeden, Cha, & Bucca, 2016). However, data drawn from the ACS indicate that the U.S. fatherhood wage premium remained stable between 1980 and 2010 (Buchmann & McDaniel, 2016). Although focusing on different countries, an analysis of longitudinal household data from the U.K. and Germany found evidence the fatherhood wage premium declined across cohorts of fathers born in the 1950s, 1960s, and 1970s (Mari, 2019).

Fewer studies examine change over time in the wage effects of marriage than of parenthood. There is evidence of a gradual decline in the U.S. marriage wage premium for men from 1976 to 1999, after adjusting for cohabitors (Cohen, 2002). Although using data from a different country, men's marriage wage premium also declined from 1968 to 1991 in Sweden, because the gap in work productivity between married and single men narrowed (Richardson, 2000). The author found a cohabitation wage premium, but the wage premium associated with cohabitation was smaller than for marriage.

Some studies suggest women's marriage wage penalty has declined over time. Two U.S.-based studies found that women's marriage wage penalty declined across cohorts born from 1936 to 1975 (Juhn & McCue, 2016a, 2016b). Another U.S.-based study found that men, but not women, experienced a marriage wage premium in the Baby Boom (defined as those born between 1947 and 1964), but that the member of the couple who works the most hours experienced a marriage wage premium, regardless of gender, among Millennials (defined as those born between 1980 and 1984) (Budig & Lim, 2016). However, breadwinner men experienced larger marriage wage premiums than breadwinner women in this study.

Changes in the relationship between housework hours and wages have not yet been explored. Prior research focuses on change over time in the amount of time women and men

spend on housework (Bianchi et al., 2000, 2012; Kan, Sullivan & Gershuny, 2011), rather than change over time in the relationship between housework hours and wages. Even less is known about whether the association between co-residing partners' housework hours and men's and women's wages (Matteazzi & Scherer, 2020; Blom & Cooke, 2023) has changed over time, despite key implications for household specialization.

2.5. Current Investigation

How have family wage penalties and premiums changed across members of the Baby Boom and Generation X birth cohorts? This paper is the first to address this question by comparing cohorts of women and men who entered prime family-forming years before (members of the Baby Boom cohort, born between 1949 and 1964) and after (members of the Generation X cohort, born between 1965 and 1980) the reversal of the gender gap in education. I consider parenthood, partnership status, and housework hours together in the common framework of a single study. This gives a broader understanding of the potentially changing association of wages with family roles and responsibilities. In a supplementary analysis, I also look at associations between these family roles and labor force participation to attend to the possibility of selectivity. Consistent with many other recent studies of wage premiums and penalties associated with parenthood, I use fixed effects models to adjust for unobserved characteristics that may influence the results (e.g., Killewald, 2013; Jee, Misra, Murray-Close, 2019; Yu & Hara, 2021).

3. Methods

3.1. Data

I draw on data from the 1985 to 2013 waves of the PSID. The PSID is a nationally representative[2] longitudinal household survey that collects data on earnings, hours of work, and

[2] While maintaining overall representativeness, the PSID has slight attrition among the lower educated (Fitzgerald 2011).

housework hours for both members of a couple. The PSID began with a sample of 4,800 American households in 1968, and reinterviewed these families and their descendants annually until 1997, and biennially thereafter. I selected the 1985 to 1997 waves for members of the Baby Boom and the 2001 to 2013 waves[3] for members of Generation X because the age ranges (ages 25 to 48) and duration of years (12 years) are comparable, facilitating the temporal change assessment (Avellar & Smock, 2003; Ryder, 1965; Smock, 1993; Sweeney, 2002).

The lexis diagram of the birth cohorts and PSID sample years is shown in Figure 1. Note in Figure 1 that the x-axis represents the calendar year of observation in the PSID, whereas the y-axis represents the age of the sample members. Each line denotes the beginning and ending birth years of the respective cohorts included in the analytic sample (e.g., one line extends from 1949 while another line extends from 1964 for members of the Baby Boom), and the shaded area in between lines represents the ages included in the analytic sample.

--FIGURE 1 ABOUT HERE--

My sample consists of members from the core PSID sample, which is comprised of the original PSID sample families and their descendants. Using the individual longitudinal weights, the PSID core sample is representative of the U.S. population, except for the post-1968 immigrants and their descendants. I use the 1997 and 2013 individual longitudinal weights. I restrict the sample to women and men who are either single or in heterosexual partnerships that the PSID classifies as heads or wives. I select ages 25 to 48 to capture prime childrearing years, and years after sample members likely completed their education. Sensitivity tests including women and men below the age of 25 suggest that including younger ages does not significantly change the results. All sample members have at least two observations for labor force

[3] Because the PSID transitioned to biennial data collection after 1997, the Generation X sample comprises of 2001, 2003, 2005, 2007, 2009, and 2013.

participation and hourly wages because this is necessary to estimate fixed effects models. To determine cohort membership, I use birth year from the individual PSID file.

I restrict my analytic samples further to households where the interviewed respondent was either the head or wife to increase the accuracy of the average weekly housework hours measure, in alignment with past research (Killewald & Gough, 2010). In most cases, the PSID interviews the head or wife, however there are some cases where another member of the household, such as a co-residing extended family member, might respond to the PSID interview questions. I also drop cases missing on key analytic variables.

This analysis has two sub-samples. The first consists of earners with a non-zero hourly wage value. The second, for the supplementary analysis of labor supply, includes a sample of earners and non-earners, not missing on the labor force participation variable. The sample of earners includes 1,313 cases and 10,350 person-years for women and 1,060 cases and 10,091 person-years for men from the Baby Boom, and 2,197 cases and 11,251 person-years for women and 2,624 cases and 10,607 person-years for men from Generation X. The full sample includes 1,396 cases and 14,788 person-years for women and 1,082 cases and 11,557 person-years for men from the Baby Boom, and 2,283 cases and 13,561 person-years for women and 1,964 cases and 11,451 person-years for men from Generation X. For a full accounting of missing data, see Appendix A.

3.2. Measures

This analysis has two dependent variables—the natural logarithm of women's and men's hourly wages for the sample of earners, and women's and men's labor force participation for the supplementary analysis. Each wave of the PSID collects annual earnings and hours of work from the previous year. To construct the hourly wage measure, I divided annual earnings from paid

labor by annual hours of work. Next, I took the natural logarithm to address the skewness of the distribution. I top-coded hourly wages at the 99th percentile to address outliers. Hourly wages are in constant 2012 dollars using the Bureau of Labor Statistics Consumer Price Index (CPI). Labor force participation is a dichotomous measure of whether the individual's hours worked is at or above zero.

There are several key independent variables in this study—parenthood, own hours of housework, and partnership status and co-residing romantic partner's hours of housework. Parenthood as classified as by whether the woman or man has no children (the reference group), one, two, or three or more children. I use the number of children ever born or adopted from the PSID Childbirth and Adoption History File, consistent with other studies (England et al., 2016; Jee, Misra, Murray-Close, 2019).

The PSID defines self-reported hours of housework by the average number of hours spent "cooking, cleaning, and doing other work around the house." I top-coded women's and men's own hours of housework by the 99th percentile to address outliers.

To capture partnership status and co-residing romantic partner's hours of housework, I constructed a cohort-specific variable for women and men. The categories are as follows: single (the reference category), partnered and the co-residing romantic partner is at or below the 25th percentile of housework hours for their gender and cohort, and partnered and the co-residing romantic partner is above the 25th percentile of housework hours for their gender and cohort. It was necessary to combine partnership status and partner's housework hours, such that a zero value is assigned to single individuals and not both single individuals and individuals partnered with a woman or a man who reports spending no time on housework.

I chose the 25th percentile as the cutoff to identify reasonable outliers. In the early stages

of this analysis, I explored various percentile cutoffs and found that my main findings were robust to these choices (e.g., 50th percentile, 75th percentile). Among partners who are men, the 25th percentile is 3 hours for members of the Baby Boom and 2 hours for members of Generation X. Among partners who are women, the 25th percentile is 9 hours for members of the Baby Boom and 6 hours for members of Generation X. There was not enough variability between cohabiting and married couples to separate this measure by marital status. The majority of partnered women and men were married. Sensitivity tests limiting the partnership status to only married doesn't change the results.

I also adjust for demographics, such as age, age^2, and region of current residence at the interview date. The specification for current residence at the interview date is displayed in Table 1. The PSID does not consistently update heads' and wives' educational attainment, and so I treat educational attainment as time-invariant, in alignment with prior research using the PSID (Jee, Misra, Murray-Close, 2019).

3.3. Models

I estimate fixed effect models with person-years as the unit of analysis. Fixed effects models adjust for stable unobserved factors, which may influence wage penalties and premiums, such as unchanging aspects of cognitive aptitude, personality, and tastes arising from early socialization. The model is as follows:

$$\ln(wages_{it}) = \gamma_0 + \gamma_1 parent_{it} + \gamma_2 own\ housework\ hours_{it} + \gamma_3 partnership\ status\ and\ partner's\ housework\ hours_{it} + \sum a_j \boldsymbol{X}_{jit} + \mu_i + year_t + \epsilon_{it},$$

in which the outcome is the natural logarithm of hourly wages of person *i* in year *t*; γ_0 is the intercept; γ_1 is the coefficient for parenthood; γ_2 is the coefficient for own housework hours; γ_3 is the coefficient for partnership status and partner's housework hours; $\boldsymbol{X}_{jit}$ symbolizes *j* time-

varying variables that may also affect earnings (e.g., region); μ_i and $year_k$ are fixed effects for individual *i* and *k* calendar year; and ϵ_{it} is the error term. μ_i captures time-invariant characteristics of individuals, both observable and unobservable. The supplementary analysis uses the same independent variables, but with labor force participation as the dependent variable. In fixed effects models, coefficients are interpreted as comparisons of each individual to themselves at a different point in time, such as contrasting a parent's wages after having children to a point in time when the parent was childless, for example.

In both the main and supplementary analysis, the models are stratified by gender and cohort. To test for significant changes in the independent variables over time, I pool cohorts of the same gender and interact all independent variables with an indicator variable for cohort.

4. Results

4.1. Descriptive Statistics

Table 1 reports the descriptive statistics for women and men who are members of the Baby Boom (born between 1949 and 1964) and Generation X (born between 1965 and 1980). Table 1 includes descriptive statistics for the full sample, including both earners and non-earners, and the sample of only earners for each gender and cohort. Sample members are roughly 34 years of age across gender and cohort for comparability.

--TABLE 1 ABOUT HERE--

Beginning with women, labor force participation significantly increased between cohorts. Women's natural logarithm of hourly wages also significantly increased between cohorts. Significantly fewer members of Generation X are childless when compared to members of the Baby Boom. Consistent with current trends (Bianchi 2000, 2012; Kan, Sullivan & Gershuny, 2011), women's housework hours also significantly declined across birth cohorts. I found no

significant difference in the proportion of partnered women across birth cohorts.

Next, I describe key variables for men. As with women, men's labor force participation significantly increased between cohorts.[4] However, unlike women, men's natural logarithm of hourly wages significantly declined between birth cohorts. Significantly fewer members of Generation X are childless when compared with members of the Baby Boom, similar to what I observed for women. I did not find evidence of significant change in men's housework hours between cohorts. Significantly fewer members of Generation X are unpartnered when compared to members of the Baby Boom.

Although I treat level of educational attainment as time-invariant, I include this variable in Table 1 for descriptive purposes. There are no significant differences in men's educational attainment across cohorts; however, women's educational attainment significantly increased across cohorts, driven by the dramatic rise in women's college completion among members of Generation X. This rise in Generation X women's college completion represents the reversal of the gender gap in education —men obtained college degrees at higher rates than women in the Baby Boom, but women obtained college degrees at higher rates than men in Generation X.

4.2. Multivariate Results

How have family wage penalties and premiums changed across members of the Baby Boom and Generation X birth cohorts? Table 3 reports change in the relationship between parenthood, partnership status, housework hours, and women's and men's hourly wages across birth cohorts, using the earners sample.

--TABLE 2 ABOUT HERE--

I begin with the results for women (Panel A), in which I find a significant negative

[4] This finding may be explained by higher attrition among less educated PSID sample members over time (Fitzgerald 2011).

association between motherhood and wages for members of the Baby Boom, but not for Generation X. I also find a significant wage penalty associated with women's housework hours for members of the Baby Boom, but not for Generation X. When pooling cohorts, this decline in the motherhood wage penalty and wage penalty associated with women's housework hours is significant.

Women's partnership status and housework hours follows a similar pattern. For members of the Baby Boom, the negative association between partnership status and women's wages is both significant and varies by men's housework hours. Being partnered is associated with an hourly wage reduction of 21.3 percent when men's housework hours are at or below the 25th percentile of other men, and 15.6 percent when men's housework hours are above the 25th percentile of other men. However, for members of Generation X, I find no significant association between partnership status and women's wages, which is a significant decline across cohorts.

Next, I report the results for men (Panel B). Beginning with members of the Baby Boom, I find a significant positive association between fatherhood and wages. I do not find evidence of a fatherhood wage premium among members of Generation X; however, this decline in the fatherhood wage premium across cohorts is not significant. It is possible I do not find significant fatherhood wage premium in the Generation X sample because my sample size is too small to detect an association. There is no significant association between men's housework hours and men's wages for members of the Baby Boom or for Generation X.

I find a significant association between partnership status, women's housework, and men's wages for members of the Baby Boom, however. Men's partnership status varies by women's housework hours. Being partnered is associated with a 4.8 percent wage reduction when women's housework hours are at or below the 25th percentile of other women. When

women's housework hours are above the 25th percentile of other women, there is no effect on men's wages. For members of Generation X, this association disappears, representing a significant decline in the association between partnership status and men's wages.

4.2. Supplementary Analysis

The main analysis considers differentials in the association of wages with family roles and responsibilities. Although not frequently empirically addressed, selectivity into the labor force is also important to consider. In a supplementary analysis, I consider the association between family roles and responsibilities and women's and men's labor force participation. Table 3 reports change over time in the relationship between parenthood, partnership status, housework hours, and women's and men's labor force participation, using the full sample of earners and non-earners.

--TABLE 3 ABOUT HERE--

Beginning with the results for women (Panel A), I find that motherhood and women's housework hours are significantly associated with a lower probability of participating in the labor force participation for members of the Baby Boom and Generation X. After pooling cohorts, I find a significant cohort change in the association between motherhood and labor force participation, but no significant cohort change in the association between housework hours and labor force participation. The probability that mothers participate in the labor force is significantly lower for the Baby Boom than for Generation X.

For both cohorts, women's partnership status is associated with a significant decrease in the probability of labor force participation. However, similar to the findings for motherhood, the positive association between partnership status and the probability of women's participation in the labor force significantly increased between the Baby Boom and Generation X. Partnership

status did not vary by men's housework hours for members of the Baby Boom, but did for Generation X. Being partnered is associated with a 0.2 reduction in the probability Baby Boom women participate in the labor force, irrespective of men's housework hours. Being partnered is associated with a 0.06 reduction in the probability a Generation X woman participates in the labor force when men's housework hours are at or below the 25th percentile of other men, and a 0.02 reduction when men's housework hours above the 25th percentile of other men.

Next, I report the results for men (Panel B). I find no evidence that fatherhood, partnership status, and housework hours are associated with men's labor force participation in either cohort of men.

5. Conclusion

How have wage penalties and premiums associated with family roles and responsibilities changed across members of the Baby Boom and Generation X birth cohorts? Drawing on data from the 1985 to 2013 waves of the PSID, this paper introduces a novel cohort-comparison for this literature—women and men who entered prime family-forming years roughly before (1949 and 1964) and after (1965 and 1980) the historic reversal of the gender gap in education. Men had higher rates of college completion than women among members of the Baby Boom (born between 1949 and 1964), but this trend historically reversed in Generation X (born between 1965 and 1980). This paper is also the first to investigate change across birth cohorts in the wage effects of parenthood, partnership status, and housework hours, together in the framework of a single study.

My findings suggest the motherhood wage penalty declined across birth cohorts, consistent with some prior findings using census data to compare time periods instead of cohorts (Buchmann & McDaniel, 2016; Glauber 2018; Pal & Waldfogel, 2016; Weeden, Cha, & Bucca,

2016). The association of women's wages with partnership status and housework hours also declined across birth cohorts. The decline in the association of women's wages with partnership status is consistent with studies that examine partnership status without housework hours (Budig & Lim, 2016; Juhn & McCue, 2016a, 2016b).

These findings demonstrate that working mothers have made gains across birth cohorts—the wage depressing effects of children, partnership status, and housework hours have declined (Ryder, 1965). While the U.S. still lacks federal-level work-family policy, it is possible that employers have become less discriminatory against mothers over time as more mothers, with more education, participate in the labor force than in prior decades. Some states and individual organizations have even begun to introduce more generous work-family policy than what is available at the federal level (Collins, 2019; Rossin-Slater, Ruhm, & Waldfogel, 2013), suggesting a gradual departure from *ideal worker* norms, expecting workers to dedicate themselves fully to the demands of the organization (Acker, 1990).

Generation X women may rely more on outsourcing than Baby Boom women, given women's housework hours have declined over time even though men and women are still yet to share domestic labor equally (Bernhardt, & Lappegård, 2015; Bianchi et al., 2000, 2012; Bianchi & Milkie, 2010; Goldscheider; Gupta, 2007). Outsourcing tasks that detract from paid labor may explain the reduced association between housework hours and women's wages, because women tend to use their own earnings to outsource domestic labor (Becker 1985; Carlson & Lynch, 2017; Gupta, 2007;).

Yet, my supplementary analysis found persistence in the relationship between family roles and responsibilities and women's participation in the labor force, indicating that there may be less progress than the wage results suggest. For instance, mothers who remained in the labor

force may be systematically different from mothers who "opt out" (Stone, 2007).

My findings also suggest that the fatherhood wage premium did not significantly change over time, consistent with a study using census data to compare the fatherhood wage premium between 1980 and 2010 (Buchmann & McDaniel, 2016). Employer bias in favor of fathers may have also remained stable (Budig & Hodges, 2010; Correll, Benard, & Paik, 2007; McDonald, 2020). Men's work productivity may not be related to changing trends in women's college completion and wages. Even with the elimination of the motherhood wage penalty in Generation X, which may reduce pressure on men to be financial providers in dual-earning families (Townsend, 2002), the fatherhood wage premium is unchanged. Partnered fathers' work productivity may not be motivated by compensating for declines in women's work hours and wages after having children, suggesting the financial provider identity may be impervious to women's financial contribution to the family (Killewald, 2013; Townsend, 2002).

Unexpectedly, I do not find a marriage wage premium in either cohort of men. This is perhaps because this study examines only the 1980s and 1990s for members of the Baby Boom. Typically, studies of the marriage wage premium also use data from the 1970s (Budig & Lim, 2016; Cohen, 2002; Gray, 1997; Juhn & McCue, 2016a; Richardson, 2000). Prior cohort-based studies do not explore the marriage wage premium for Generation X (Budig & Lim, 2016; Gray, 1997; Juhn & McCue, 2016a). However, I do find a negative association between women's housework, when women spend little time on housework relative to other women, and partnered Baby Boom men's wages, affirming household specialization tends to support men's careers in this cohort (Matteazzi & Scherer, 2020; Blom & Cooke, 2023).

Men's housework hours are not significantly associated with men's wages in either cohort (Baxter, Hewitt, & Haynes, 2008; Pollmann-Schult, 2011; Sanchez & Thompson, 1997).

There may not be an association between men's housework hours and men's wages because men do not spend enough time on housework for housework hours to impact men's effort at work (Becker, 1985).

The results should be interpreted considering the study's limitations. Fixed effects models may adjust for some stable aspects of selection into parenthood and partnerships. However, fixed effects models are limited to adjusting for unobservable factors that are stable over time. These models will not adjust for shifts in unobservable factors that may influence the results, such as changes in family planning aspirations and work-related ambition. Future research should also investigate the association between years of work experience and work hours and family wage penalties and premiums over time.

Despite these limitations, this study affirms that the gender revolution remains stalled in these two birth cohorts. Women have not only become greater economic contributors since the 1960's, but my findings suggest that wage penalties associated with children, partnership status, and housework hours among earners may have declined between members of the Baby Boom and Generation X birth cohorts. However, these family roles and responsibilities remain negatively associated with women's labor market participation in both birth cohorts. The economic standing of fathers is also unchanged across the Baby Boom and Generation X birth cohorts. Fatherhood remains associated with a wage premium, and men's housework hours remain unassociated with men's wages in both birth cohorts.

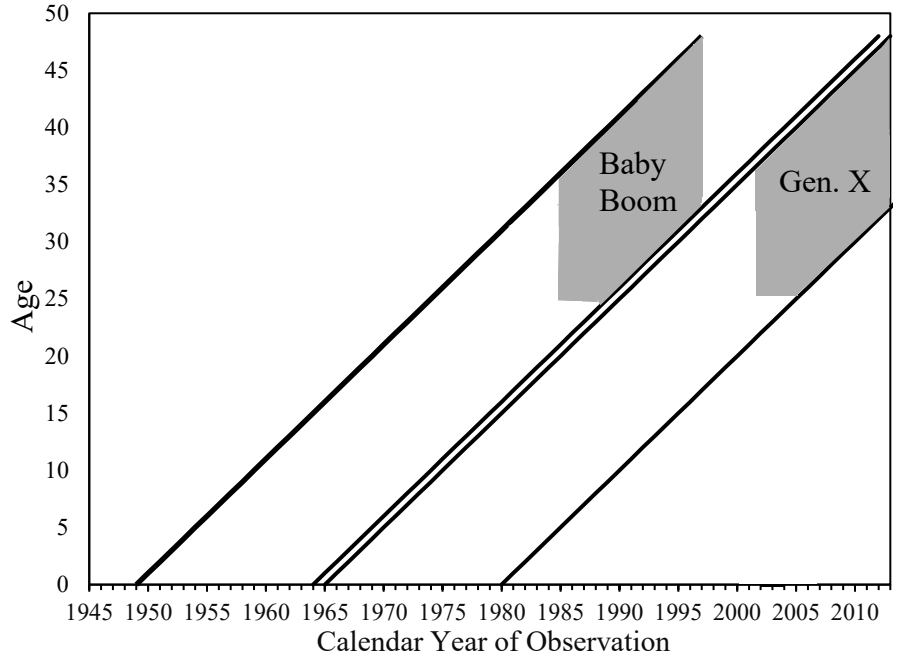


Figure 1. Lexis Diagram of Baby Boom and Generation X birth cohorts in Analytic Sample

Table 1
Descriptive Statistics.

	Women								Men							
	Baby Boomers				Generation X				Baby Boomers				Generation X			
	Full		Earners		Full		Earners		Full		Earners		Full		Earners	
	Mean	*SE*	Mean	*SE*	Mean	*SE*	Mean	*SE*	Mean	*SE*	Mean	*SE*	Mean	*SE*	Mean	*SE*
In the Labor Force	0.73	0.01	1.00	-	0.84†	0.01	1.00	-	0.89	0.01	1.00	-	0.93†	0.01	1.00	-
Natural Logarithm of Hourly Wages	2.03	0.04	2.78	0.02	2.41†	0.03	2.88†	0.02	2.84	0.04	3.19	0.02	2.89	0.02	3.10†	0.02
Number of Children Ever Born																
No Children	0.29	0.01	0.33	0.02	0.25†	0.01	0.26†	0.01	0.39	0.01	0.38	0.01	0.33†	0.01	0.33†	0.01
1 Child	0.22	0.01	0.22	0.01	0.23†	0.01	0.23†	0.01	0.19	0.01	0.19	0.01	0.21†	0.01	0.21†	0.01
2 Children	0.31	0.01	0.29	0.01	0.32†	0.01	0.31†	0.01	0.26	0.01	0.27	0.01	0.28†	0.01	0.28†	0.01
3+ Children	0.19	0.01	0.15	0.01	0.21†	0.01	0.19†	0.01	0.16	0.01	0.17	0.01	0.18†	0.01	0.17†	0.01
Own Weekly Hours of Housework	18.28	0.40	15.82	0.31	14.36†	0.20	12.96†	0.17	7.72	0.14	7.64	0.15	7.68	0.19	7.51	0.17
Partnership Status and Partner's Weekly Housework Hours																
Single	0.33	0.02	0.35	0.02	0.35	0.01	0.36	0.01	0.26	0.01	0.24	0.01	0.20†	0.01	0.20†	0.01
Partnered, Housework Hours ≤ 25th Percentile	0.20	0.01	0.17	0.01	0.18	0.01	0.17	0.01	0.19	0.01	0.19	0.01	0.36†	0.01	0.36†	0.01
Partnered, Housework Hours > 25th Percentile	0.48	0.02	0.48	0.02	0.47	0.01	0.47	0.01	0.55	0.01	0.57	0.01	0.44†	0.01	0.44†	0.01
Education																
<High School	0.12	0.01	0.09	0.01	0.11†	0.01	0.09†	0.01	0.10	0.02	0.09	0.01	0.13	0.01	0.12	0.01
High School	0.33	0.02	0.33	0.02	0.26†	0.01	0.25†	0.01	0.30	0.02	0.30	0.02	0.30	0.01	0.29	0.02
Some College	0.30	0.01	0.30	0.02	0.32†	0.01	0.32†	0.01	0.29	0.01	0.29	0.01	0.29	0.01	0.29	0.01
College+	0.25	0.02	0.27	0.02	0.32†	0.02	0.33†	0.02	0.31	0.02	0.33	0.02	0.28	0.01	0.29	0.01
Age	34.81	0.17	34.96	0.19	34.80	0.08	34.62	0.08	34.91	0.16	34.79	0.16	34.88	0.13	34.77	0.13
Region																
South	0.32	0.02	0.31	0.02	0.49†	0.03	0.48†	0.03	0.30	0.02	0.30	0.02	0.45†	0.02	0.44†	0.02
Northeast	0.22	0.03	0.22	0.03	0.12†	0.01	0.12†	0.01	0.21	0.02	0.21	0.02	0.12†	0.02	0.12†	0.02
North Central	0.27	0.02	0.28	0.02	0.25†	0.02	0.26†	0.02	0.29	0.02	0.29	0.02	0.27†	0.02	0.27†	0.02
West	0.19	0.02	0.19	0.02	0.14†	0.02	0.14†	0.02	0.20	0.02	0.21	0.02	0.16†	0.02	0.16†	0.02
N	14,788		10,350		13,561		11,251		11,557		10,091		11,451		10,607	

Note. †Significant change across cohorts in each respective sample at the p<0.05 level. Sample is person-year observations of Baby Boom (born between 1949 and 1964) and Generation X (born between 1965 and 1980) women and men ages 25 to 48. Uses 1985 to 1997 waves for the Baby Boom and 2001 to 2013 waves for Generation X. Weighted using the 1997 individual longitudinal weight for the Baby Boom, and weighted using the 2013 individual longitudinal weight for Generation X. Wages in 2012 constant dollars using the Consumer Price Index (CPI).

Table 2.
Results from Fixed-Effects Models Predicting the Log Hourly Wages on Children, Partnership Status, and Weekly Housework Hours

	Panel A: Women				Panel B: Men			
	Baby Boom (1949 and 1964)		Generation X (1965 and 1980)		Baby Boom (1949 and 1964)		Generation X (1965 and 1980)	
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Number of Children Ever Born (ref=None)								
1	-0.07*	-0.03	0.04	0.04	0.04	0.04	0.04	0.03
	(-2.10)	(-0.89)	(1.73)	(1.82)	(1.65)	(1.55)	(1.77)	(1.37)
2	-0.17***	-0.11**	0.03	0.04	0.08**	0.08*	0.05	0.04
	(-4.34)	(-3.01)	(1.41)	(1.50)	(2.84)	(2.56)	(1.89)	(1.43)
3+	-0.17***	-0.08	0.01	0.01	0.12**	0.12**	0.05	0.04
	(-3.35)	(-1.67)	(0.32)	(0.42)	(3.10)	(2.85)	(1.55)	(1.09)
Own Housework Hours		-0.01***		-0.00†		0.00		0.00
		(-6.79)		(-0.19)		(0.21)		(1.47)
Partnership Status and Partner's Weekly Housework Hours (ref=Single)								
Partnered, Housework Hours ≤ 25th Percentile		-0.24***		-0.01		-0.05*		0.02
		(-5.66)		(-0.37)		(-2.07)		(0.95)
Partnered, Housework Hours > 25th Percentile		-0.17***		-0.02		-0.00		0.03
		(-4.59)		(-1.01)		(-0.11)		(1.16)
Age	0.11***	0.11***	0.03	0.03	0.04	0.04	0.11***	0.11***
	(3.79)	(3.88)	(1.35)	(1.33)	(1.53)	(1.50)	(4.59)	(4.62)
Age^2	-0.00***	-0.00***	-0.00**	-0.00**	-0.00***	-0.00***	-0.00***	-0.00***
	(-4.17)	(-4.29)	(-3.07)	(-3.09)	(-4.42)	(-4.38)	(-4.96)	(-4.95)
Region (ref=South)								
North	0.14	0.11	0.06	0.06	0.09	0.09	-0.27*	-0.27*
	(0.74)	(0.61)	(0.72)	(0.70)	(1.01)	(1.02)	(-2.27)	(-2.28)
Northeast	-0.02	-0.04	-0.04	-0.04	-0.02	-0.02	-0.11	-0.11
	(-0.16)	(-0.37)	(-0.49)	(-0.49)	(-0.19)	(-0.21)	(-1.51)	(-1.51)
West	-0.05	-0.05	-0.13	-0.13	0.06	0.06	-0.10	-0.10
	(-0.42)	(-0.50)	(-1.45)	(-1.45)	(0.76)	(0.80)	(-1.38)	(-1.38)
Intercept	0.74	0.99	2.71***	2.75***	3.62***	3.64***	0.55	0.49
	(0.87)	(1.21)	(3.59)	(3.62)	(5.02)	(5.02)	(0.69)	(0.61)
N	10,350	10,350	11,251	11,251	10,091	10,091	10,607	10,607
Joint Significance Across Cohorts:								
Number of Children Ever Born			***	**				
Partnership Status and Partner's Weekly Housework Hours				***				**

Note. ***p < 0.001, **p < 0.01, *p < 0.05, †Significant change across cohorts at the p<0.001 level. Sample includes men and women ages 25 to 48. Uses 1985 to 1997 waves for Baby Boomers and 2001 to 2013 waves for Generation X. Weighted using the 1997 individual longitudinal weight for Baby Boomers, and weighted using the 2013 individual longitudinal weight for Generation X. Wages in 2012 constant dollars using the Consumer Price Index (CPI).

Table 3.
Results from Fixed-Effects Models Predicting Labor Force Participation on Children, Partnership Status, and Weekly Housework Hours

	Panel A: Women				Panel B: Men			
	Baby Boom (1949 and 1964)		Generation X (1965 and 1980)		Baby Boom (1949 and 1964)		Generation X (1965 and 1980)	
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Number of Children Ever Born (ref=None)								
1	-0.09***	-0.05**	-0.05***	-0.03*	-0.00	-0.01	0.02	0.02
	(-4.81)	(-3.10)	(-3.38)	(-2.01)	(-0.17)	(-0.48)	(1.61)	(1.41)
2	-0.12***	-0.07**	-0.08***	-0.05**	0.01	0.01	0.02	0.02
	(-5.26)	(-3.16)	(-4.45)	(-3.09)	(0.80)	(0.35)	(1.69)	(1.54)
3+	-0.12***	-0.06*	-0.09***	-0.06**	0.03	0.02	0.03	0.03
	(-4.18)	(-2.00)	(-4.40)	(-2.89)	(1.66)	(1.17)	(1.70)	(1.57)
Own Housework Hours		-0.00***		-0.00***		-0.00		-0.00
		(-6.85)		(-8.01)		(-1.81)		(-1.58)
Partnership Status and Partner's Weekly Housework Hours (ref=Single)								
Partnered, Housework Hours ≤ 25th Percentile		-0.20***		-0.06***		0.00		-0.00
		(-10.15)		(-3.68)		(0.10)		(-0.29)
Partnered, Housework Hours > 25th Percentile		-0.19***		-0.02		0.02		0.00
		(-10.39)		(-1.40)		(0.94)		(0.27)
Age	0.04*	0.04*	-0.00	-0.00	0.00	0.00	-0.00	-0.00
	(2.31)	(2.24)	(-0.08)	(-0.23)	(0.16)	(0.11)	(-0.17)	(-0.14)
Age^2	-0.00*	-0.00*	-0.00	-0.00	-0.00	-0.00	0.00	0.00
	(-2.13)	(-2.07)	(-1.19)	(-1.12)	(-1.29)	(-1.25)	(0.51)	(0.49)
Region (ref=South)								
North	-0.02	-0.05	-0.06	-0.05	-0.07	-0.07	-0.02	-0.01
	(-0.42)	(-0.99)	(-1.42)	(-1.15)	(-1.28)	(-1.30)	(-0.34)	(-0.27)
Northeast	0.06	0.04	-0.03	-0.02	-0.02	-0.02	0.03	0.03
	(1.00)	(0.76)	(-0.86)	(-0.66)	(-0.43)	(-0.42)	(0.99)	(0.93)
West	0.03	0.02	0.03	0.03	-0.05	-0.05	-0.02	-0.02
	(0.40)	(0.29)	(0.70)	(0.72)	(-1.51)	(-1.55)	(-0.74)	(-0.74)
N	14,788	14,788	13,561	13,561	11,557	11,557	11,451	11,451
Joint Significance Across Cohorts:								
Number of Children Ever Born			***	**				
Partnership Status and Partner's Weekly Housework Hours				***				

Note. ***p < 0.001, **p < 0.01, *p < 0.05, Coefficients in Odds Ratios. †Significant change across cohorts at the p<0.05 level. Sample includes men and women ages 25 to 48. Uses 1985 to 1997 waves for Baby Boomers and 2001 to 2013 waves for Generation X. Weighted using the 1997 individual longitudinal weight for Baby Boomers, and weighted using the 2013 individual longitudinal weight for Generation X.

Appendix A. Missing Data.

Table A.1. Missing Data for Baby Boom Women

Total Person-Years	Person-Years Lost	Gender	Head/Wife	Cohort	Age	Head/Wife Respondent	Seq. No.	Years	Weight	Immigrant Sample	No. of Children	Wkly. Hwrk.	Educ.	Region	Partner Status	LFP	NL Wages
3,634,761																	
1,834,017	1,800,744	X															
688,112	1,145,905	X	X														
171,258	516,854	X	X	X													
64,618	106,640	X	X	X	X												
64,340	278	X	X	X	X	X											
63,437	903	X	X	X	X	X	X										
42,025	21,412	X	X	X	X	X	X	X									
15,646	26,379	X	X	X	X	X	X	X	X								
15,435	211	X	X	X	X	X	X	X	X	X							
15,435	0	X	X	X	X	X	X	X	X	X	X						
15,388	47	X	X	X	X	X	X	X	X	X	X	X					
14,915	473	X	X	X	X	X	X	X	X	X	X	X	X				
14,815	100	X	X	X	X	X	X	X	X	X	X	X	X	X			
14,788	27	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
14,788	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10,350	4,438	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note. “Gender” refers to whether the individual is a woman, “Head/Wife” refers to the individual is head or wife,, “Cohort” refers to whether the year the individual was born corresponds with the birth cohort years (1949 to 1964), “Age” refers to whether the individual was between the appropriate age range (25 to 48), “Head/Wife Respondent” refers to whether the head or the wife responded to the PSID interview questions, “Seq. No.” refers to whether the individual sequence number indicates the individual was in the household at the time of the interview, “Year” refers to appropriate interview years (1985 to 1997), “Weight” refers to a non-zero 1997 Core/Immigrant Individual Longitudinal weight, “Immigrant Sample” refers to whether the respondent is from the PSID immigrant supplement, “No. of Children” refers to children ever-born using the number of children in the household in the family file and history of birth or adoption from the Childbirth and Adoption History File, “Wkly. Hwrk.” refers to women’s own weekly hours of housework, “Educ.” refers to women’s educational attainment, “Region” refers to region of residence at the time of the interview, “Partner Status” refers partnership status and men’s housework hours, “LFP” refers to whether or not the woman is participating in the labor force, and “NL Wages” refers to natural logarithm of women’s hourly wages.

Table A.2. Missing Data for Generation X Women

Total Person-Years	Person-Years Lost	Gender	Head/Wife	Cohort	Age	Head/Wife Respondent	Seq. No.	Years	Weight	Immigrant Sample	No. of Children	Wkly. Hwrk.	Educ.	Region	Partner Status	LFP	NL Wages
3,634,761																	
1,834,017	1,800,744	X															
688,112	1,145,905	X	X														
128,682	559,430	X	X	X													
29,440	99,242	X	X	X	X												
29,309	131	X	X	X	X	X											
28,748	561	X	X	X	X	X	X										
15,863	12,885	X	X	X	X	X	X	X									
15,863	0	X	X	X	X	X	X	X	X								
14,612	1,251	X	X	X	X	X	X	X	X	X							
14,612	0	X	X	X	X	X	X	X	X	X	X						
14,488	124	X	X	X	X	X	X	X	X	X	X	X					
13,637	851	X	X	X	X	X	X	X	X	X	X	X	X				
13,587	50	X	X	X	X	X	X	X	X	X	X	X	X	X			
13,561	26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
13,561	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
11,251	2,310	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note. “Gender” refers to whether the individual is a woman, “Head/Wife” refers to the individual is head or wife,, “Cohort” refers to whether the year the individual was born corresponds with the birth cohort years (1965 to 1980), “Age” refers to whether the individual was between the appropriate age range (25 to 48), “Head/Wife Respondent” refers to whether the head or the wife responded to the PSID interview questions, “Seq. No.” refers to whether the individual sequence number indicates the individual was in the household at the time of the interview, “Year” refers to appropriate interview years (2001 to 2013), “Weight” refers to a non-zero 1997 Core/Immigrant Individual Longitudinal weight, “Immigrant Sample” refers to whether the respondent is from the PSID immigrant supplement, “No. of Children” refers to children ever-born using the number of children in the household in the family file and history of birth or adoption from the Childbirth and Adoption History File, “Wkly. Hwrk.” refers to women’s own weekly hours of housework, “Educ.” refers to women’s educational attainment, “Region” refers to region of residence at the time of the interview, “Partner Status” refers partnership status and men’s housework hours, “LFP” refers to whether or not the woman is participating in the labor force, and “NL Wages” refers to natural logarithm of women’s hourly wages.

Table A.3. Missing Data for Baby Boom Men

Total Person-Years	Person-Years Lost	Gender	Head/Wife	Cohort	Age	Head/Wife Respondent	Seq. No.	Years	Weight	Immigrant Sample	No. of Children	Wkly. Hwrk.	Educ.	Region	Partner Status	LFP	NL Wages
3,634,761																	
1,802,337	1,832,424	X															
639,391	1,162,946	X	X														
153,330	486,061	X	X	X													
55,014	98,316	X	X	X	X												
54,725	289	X	X	X	X	X											
53,589	1,136	X	X	X	X	X	X										
35,682	17,907	X	X	X	X	X	X	X									
11,993	23,689	X	X	X	X	X	X	X	X								
11,807	186	X	X	X	X	X	X	X	X	X							
11,807	0	X	X	X	X	X	X	X	X	X	X						
11,780	27	X	X	X	X	X	X	X	X	X	X	X					
11,701	79	X	X	X	X	X	X	X	X	X	X	X	X				
11,593	108	X	X	X	X	X	X	X	X	X	X	X	X	X			
11,557	36	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
11,557	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10,091	1,466	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note. “Gender” refers to whether the individual is a man, “Head/Wife” refers to the individual is head or wife,, “Cohort” refers to whether the year the individual was born corresponds with the birth cohort years (1949 to 1964), “Age” refers to whether the individual was between the appropriate age range (25 to 48), “Head/Wife Respondent” refers to whether the head or the wife responded to the PSID interview questions, “Seq. No.” refers to whether the individual sequence number indicates the individual was in the household at the time of the interview, “Year” refers to appropriate interview years (1985 to 1997), “Weight” refers to a non-zero 1997 Core/Immigrant Individual Longitudinal weight, “Immigrant Sample” refers to whether the respondent is from the PSID immigrant supplement, “No. of Children” refers to children ever-born using the number of children in the household in the family file and history of birth or adoption from the Childbirth and Adoption History File, “Wkly. Hwrk.” refers to men’s own weekly hours of housework, “Educ.” refers to men’s educational attainment, “Region” refers to region of residence at the time of the interview, “Partner Status” refers partnership status and women’s housework hours, “LFP” refers to whether or not the man is participating in the labor force, and “NL Wages” refers to natural logarithm of men’s hourly wages.

Table A.4. Missing Data for Generation X Men

Total Person-Years	Person-Years Lost	Gender	Head/Wife	Cohort	Age	Head/Wife Respondent	Seq. No.	Years	Weight	Immigrant Sample	No. of Children	Wkly. Hwrk.	Educ.	Region	Partner Status	LFP	NL Wages
3,634,761																	
1,834,017	1,800,744	X															
688,112	1,145,905	X	X														
128,682	559,430	X	X	X													
29,440	99,242	X	X	X	X												
29,309	131	X	X	X	X	X											
28,748	561	X	X	X	X	X	X										
15,863	12,885	X	X	X	X	X	X	X									
15,863	0	X	X	X	X	X	X	X	X								
14,612	1,251	X	X	X	X	X	X	X	X	X							
14,612	0	X	X	X	X	X	X	X	X	X	X						
14,488	124	X	X	X	X	X	X	X	X	X	X	X					
13,637	851	X	X	X	X	X	X	X	X	X	X	X	X				
13,587	50	X	X	X	X	X	X	X	X	X	X	X	X	X			
13,561	26	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
13,561	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
11,251	2,310	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Note. “Gender” refers to whether the individual is a man, “Head/Wife” refers to the individual is head or wife,, “Cohort” refers to whether the year the individual was born corresponds with the birth cohort years (1965 to 1980), “Age” refers to whether the individual was between the appropriate age range (25 to 48), “Head/Wife Respondent” refers to whether the head or the wife responded to the PSID interview questions, “Seq. No.” refers to whether the individual sequence number indicates the individual was in the household at the time of the interview, “Year” refers to appropriate interview years (2001 to 2013), “Weight” refers to a non-zero 2013 Core/Immigrant Individual Longitudinal weight, “Immigrant Sample” refers to whether the respondent is from the PSID immigrant supplement, “No. of Children” refers to children ever-born using the number of children in the household in the family file and history of birth or adoption from the Childbirth and Adoption History File, “Wkly. Hwrk.” refers to men’s own weekly hours of housework, “Educ.” refers to men’s educational attainment, “Region” refers to region of residence at the time of the interview, “Partner Status” refers partnership status and women’s housework hours, “LFP” refers to whether or not the man is participating in the labor force, and “NL Wages” refers to natural logarithm of men’s hourly wages.

References

Acker, J. (1990). Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations. *Gender & Society 4*(2): 139-158.

Anderson, D. J., Binder, M., & Krause, K. (2003). The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort, and Work-Schedule Flexibility. *ILR Review 56*(2): 273-294.

Avellar, S., & Smock, P. J. (2003). Has the Price of Motherhood Declined Over Time? A Cross-Cohort Comparison of the Motherhood Wage Penalty. *Journal of Marriage and Family 65*(3): 597-607.

Bauman, K. (2016). College Completion by Cohort, Age and Gender, 1967 to 2015. *Social, Housing and Economic Statistics Division Working Paper 2016*, *4*.

Baxter, J., Hewitt, B., & Haynes, M. (2008). Life Course Transitions and Housework: Marriage, Parenthood, and Time on Housework. *Journal of Marriage and Family 70*(2): 259-272.

Becker, G. S. (1991). *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

--- (1985). Human Capital, Effort, and the Sexual Division of Labor. *Journal of Labor Economics 3*(1, Part 2): S33-S58.

Bianchi, S. M., Milkie, M. A., Sayer, L. C., & Robinson, J. P. (2000). Is Anyone Doing the Housework? Trends in the Gender Division of Household Labor. *Social Forces 79*(1): 191-228.

Bianchi, S. M., & Milkie, M. A. (2010). Work and Family Research in the First Decade of the 21st Century. *Journal of Marriage and Family 72*(3): 705-725.

Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who Did, Does or Will Do It, and How Much Does It Matter? *Social Forces 91*(1): 55-63.

Bielby, D. D., & Bielby, W. T. (1988). She works hard for the money: Household Responsibilities and the Allocation of Work Effort. *American Journal of Sociology 93*(5): 1031-1059.

Blom, N., & Cooke, L. P. (2023). Wage Effects of Couples' Divisions of Labour across the UK Wage Distribution. *Work, Employment and Society* 09500170231180818.

Buchmann, C., & McDaniel, A. (2016). Motherhood and the Wages of Women in Professional Occupations. *RSF: The Russell Sage Foundation Journal of the Social Sciences 2*(4): 128-150.

Buchmann, C., & DiPrete, T. A. (2006). The Growing Female Advantage in College Completion: The Role of Family Background and Academic Achievement. *American Sociological Review 71*(4): 515-541.

Budig, M. J., & England, P. (2001). The Wage Penalty for Motherhood. *American Sociological Review* 204-225.

Budig, M. J., & Hodges, M. J. (2010). Differences in Disadvantage: Variation in the Motherhood Penalty Across White Women's Earnings Distribution. *American Sociological Review 75*(5): 705-728.

Budig, M. J., & Lim, M. (2016). Cohort Differences and the Marriage Premium: Emergence of Gender-Neutral Household Specialization Effects. *Journal of Marriage and Family 78*(5): 1352-1370.

Carlson, D. L., & Lynch, J. L. (2017). Purchases, Penalties, and Power: The Relationship Between Earnings and Housework. *Journal of Marriage and Family 79*(1): 199-224.

Cha, Y., & Weeden, K. A. (2014). Overwork and the Slow Convergence in the Gender Gap in Wages. *American Sociological Review 79*(3): 457-484.

Cohen, P. N. (2021). The Family: Diversity, Inequality, and Social Change. New York, NY: W. W. Norton & Company.

Cohen, P. N. (2002). Cohabitation and the Declining Marriage Premium for Men. *Work and Occupations 29*(3): 346-363

Collins, C. (2019). *Making Motherhood Work.* Princeton, NJ: Princeton University Press.

Correll, S. J., Benard, S., & Paik, I. (2007). Getting a Job: Is There a Motherhood Penalty? *American Journal of Sociology 112*(5): 1297-1338.

Craig, L. (2006). Does Father Care Mean Fathers Share? A Comparison of How Mothers and Fathers in Intact Families Spend Time with Children. *Gender & Society 20*(2): 259-281.

Craig, L., Perales, F., Vidal, S., & Baxter, J. (2016). Domestic Outsourcing, Housework Time, and Subjective Time Pressure: New Insights from Longitudinal Data. *Journal of Marriage and Family 78*(5): 1224-1236.

Dougherty, C. (2006). The Marriage Earnings Premium as a Distributed Fixed Effect. *Journal of Human Resources 41*(2): 433-443.

England, P. (2010). The Gender Revolution: Uneven and Stalled. *Gender & Society 24*(2): 149-166.

Fitzgerald, J. M. (2011). Attrition in Models of Intergenerational Links using the PSID with Extensions to Health and to Sibling Models. *The BE journal of economic analysis & policy 11*(3).

Glauber, R. (2008). Race and Gender in Families and at Work: The Fatherhood Wage Premium. *Gender & Society 22*(1): 8-30.

--- (2018). Trends in the Motherhood Wage Penalty and Fatherhood Wage Premium for Low, Middle, and High Earners. *Demography 55*(5): 1663-1680.

Goldin, C., & Katz, L. F. (2002). The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions. *Journal of Political Economy 110*(4): 730-770.

Goldin, C., Katz, L. F., & Kuziemko, I. (2006). The Homecoming of American College Women: The Reversal of the College Gender Gap. *Journal of Economic Perspectives 20*(4): 133-156.

Goldin, C. (2006). The Quiet Revolution that Transformed Women's Employment, Education, and Family. *American Economic Review 96*(2): 1-21.

Goldscheider, F., Bernhardt, E., & Lappegård, T. (2015). The Gender Revolution: A Framework for Understanding Changing Family and Demographic Behavior. *Population and Development Review 41*(2): 207-239.

Gough, M., & Noonan, M. (2013). A Review of the Motherhood Wage Penalty in the United States. *Sociology Compass 7*(4): 328-342.

Gray, J. S. (1997). The Fall in Men's Return to Marriage: Declining Productivity Effects or Changing Selection? *Journal of Human Resources* 481-504.

Gupta, S. (2007). Autonomy, Dependence, or Display? The Relationship Between Married Women's Earnings and Housework. *Journal of Marriage and Family 69*(2): 399-417.

Hays, S. (1996). *The Cultural Contradictions of Motherhood*. New Haven, CT: Yale University Press.

Heilman, M. E., & Okimoto, T. G. (2008). Motherhood: A Potential Source of Bias in Employment Decisions. *Journal of Applied Psychology 93*(1): 189.

Hersch, J., & Stratton, L. S. (1994). Housework, Wages, and the Division of Housework Time for Employed Spouses. *The American Economic Review*, *84*(2), 120-125.

--- (1997). Housework, Fixed Effects, and Wages of Married Workers. *Journal of Human*

Resources 285-307.

--- (2000). Household Specialization and the Male Marriage Wage Premium. *ILR Review 54*(1): 78-94.

Hodges, M. J., & Budig, M. J. (2010). Who Gets the Daddy Bonus? Organizational Hegemonic Masculinity and the Impact of Fatherhood on Earnings. *Gender & Society 24*(6): 717-745.

Jee, E., Misra, J., & Murray-Close, M. (2019). Motherhood Penalties in the US, 1986–2014. *Journal of Marriage and Family 81*(2): 434-449.

Juhn, C., & McCue, K. (2016a). Selection and Specialization in the Evolution of Marriage Earnings Gaps. *RSF: The Russell Sage Foundation Journal of the Social Sciences 2*(4): 237-269.

--- (2016b). Evolution of the Marriage Earnings Gap for Women. *American Economic Review 106*(5): 252-256.

Kan, M. Y., Sullivan, O., & Gershuny, J. (2011). Gender Convergence in Domestic Work: Discerning the Effects of Interactional and Institutional Barriers from Large-Scale Data. *Sociology 45*(2): 234-251.

Killewald, A. (2013). A Reconsideration of the Fatherhood Premium: Marriage, Coresidence, Biology, and Fathers' Wages. *American Sociological Review 78*(1): 96-116.

Killewald, A., & García-Manglano, J. (2016). Tethered Lives: A Couple-Based Perspective on the Consequences of Parenthood for Time Use, Occupation, and Wages. *Social Science Research 60*: 266-282.

Killewald, A., & Gough, M. (2010). Money Isn't Everything: Wives' Earnings and Housework Time. *Social Science Research 39*(6): 987-1003.

Killewald, A., & Gough, M. (2013). Does Specialization Explain Marriage Penalties and Premiums? *American Sociological Review 78*(3): 477-502.

Kmec, J. A. (2011). Are Motherhood Penalties and Fatherhood Bonuses Warranted? Comparing Pro-Work Behaviors and Conditions of Mothers, Fathers, and Non-Parents. *Social Science Research 40*(2): 444-459.

Loughran, D. S., & Zissimopoulos, J. M. (2009). Why Wait?: The Effect of Marriage and Childbearing on the Wages of Men and Women. *Journal of Human Resources 44*(2): 326-349.

Loury, L. D. (1997). The Gender Earnings Gap Among College-Educated Workers. *ILR Review 50*(4): 580-593.

Ludwig, V., & Brüderl, J. (2018). Is There a Male Marital Wage Premium? New Evidence from the United States. *American Sociological Review 83*(4): 744-770.

Lundberg, S., & Rose, E. (2000). Parenthood and the Earnings of Married Men and Women. *Labour Economics 7*(6): 689-710.

--- (2002). The Effects of Sons and Daughters on Men's Labor Supply and Wages. *Review of Economics and Statistics 84*(2): 251-268.

Mari, G. (2019). Is There a Fatherhood Wage Premium? A Reassessment in Societies With Strong Male-Breadwinner Legacies. *Journal of Marriage and Family 81*(5): 1033-1052.

Matteazzi, E., & Scherer, S. (2021). Gender Wage Gap and the Involvement of Partners in Household Work. *Work, Employment and Society 35*(3): 490-508.

McDonald, P. (2020). The Male Marriage Premium: Selection, Productivity, or Employer Preferences? *Journal of Marriage and Family 82*(5): 1553-1570.

Millimet, D. L. (2000). The Impact of Children on Wages, Job Tenure, and the Division of

Household Labour. *The Economic Journal 110*(462): 139-157.

Noonan, M. C. (2001). The Impact of Domestic Work on Men's and Women's Wages. *Journal of Marriage and Family 63*(4): 1134-1145.

Oppenheimer, V. K. (1988). A Theory of Marriage Timing. *American Journal of Sociology 94*(3): 563-591.

Pal, I., & Waldfogel, J. (2016). The Family Gap in Pay: New Evidence for 1967 to 2013. *RSF: The Russell Sage Foundation Journal of the Social Sciences 2*(4): 104-127.

Pampel, F. (2011). Cohort Changes in the Socio-Demographic Determinants of Gender Egalitarianism. *Social Forces 89*(3): 961-982.

Parrott, H. M. (2014). Housework, Children, and Women's Wages Across Racial–Ethnic Groups. *Social Science Research 46*: 72-84.

Pepin, J. R., Sayer, L. C., & Casper, L. M. (2018). Marital Status and Mothers' Time Use: Childcare, Housework, Leisure, and Sleep. *Demography 55*(1): 107-133.

Petersen, T., Penner, A. M., & Høgsnes, G. (2014). From Motherhood Penalties to Husband Premia: The New Challenge for Gender Equality and Family Policy, Lessons From Norway. *American Journal of Sociology 119*(5): 1434-1472.

Pollmann-Schult, M. (2011). Marriage and Earnings: Why Do Married Men Earn More Than Single Men? *European Sociological Review 27*(2): 147-163.

Powers, D., & Xie, Y. (2008). *Statistical Methods for Categorical Data Analysis*. Bingley, West Yorkshire, England: Emerald Group Publishing.

Richardson, K. (2000). *The Evolution of the Marriage Premium in the Swedish Labor Market 1968-1991* (No. 2000: 5). Working Paper.

Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the Gender System: A Theoretical

Perspective on Gender Beliefs and Social Relations. *Gender & Society 18*(4): 510-531.

Ryder, N. B. (1965). *The Cohort as a Concept in the Study of Social Change* (pp. 9-44). New York, NY: Springer New York.

Sanchez, L., & Thomson, E. (1997). Becoming Mothers and Fathers: Parenthood, Gender, and the Division of Labor. *Gender & Society 11*(6): 747-772.

Sayer, L. C., Bianchi, S. M., & Robinson, J. P. (2004). Are Parents Investing Less in Children? Trends in Mothers' and Fathers' Time with Children. *American Journal of Sociology 110*(1):1-43.

Schwartz, C. R., & Han, H. (2014). The Reversal of the Gender Gap in Education and Trends in Marital Dissolution. *American Sociological Review 79*(4): 605-629.

Smock, P. J. (1993). The Economic Costs of Marital Disruption for Young Women Over the Past Two Decades. *Demography 30*(3): 353-371.

Smock, P. J., & Schwartz, C. R. (2020). The Demography of Families: A Review of Patterns and Change. *Journal of Marriage and Family 82*(1): 9-34.

Sweeney, M. M. (2002). Two Decades of Family Change: The Shifting Economic Foundations of Marriage. *American Sociological Review* 132-147.

Sweeney, M. M., & Cancian, M. (2004). The Changing Importance of White Women's Economic Prospects for Assortative Mating. *Journal of Marriage and Family 66*(4): 1015-1028.

Taniguchi, H. (1999). The Timing of Childbearing and Women's Wages. *Journal of Marriage and the Family* 1008-1019.

Townsend, N. (2002). *Package Deal: Marriage, Work and Fatherhood in Men's Lives*. Philadelphia, PA: Temple University Press.

Weeden, K. A., Cha, Y., & Bucca, M. (2016). Long Work Hours, Part-Time Work, and Trends in the Gender Gap in Pay, the Motherhood Wage Penalty, and the Fatherhood Wage Premium. *RSF: The Russell Sage Foundation Journal of the Social Sciences 2*(4): 71-102.

Weisshaar, K. (2018). From Opt Out to Blocked Out: The Challenges for Labor Market Re-Entry after Family-Related Employment Lapses. *American Sociological Review 83*(1): 34-60.

Yu, W. H., & Hara, Y. (2021). Motherhood Penalties and Fatherhood Premiums: Effects of Parenthood on Earnings Growth Within and Across Firms. *Demography 58*(1): 247-272.

Chapter 2:

Neo-Egalitarianism: How Breadwinner Mothers Made Sense of Domestic Gender Roles During COVID-19

Angela Clague

Abstract: This study leverages the "unsettled time" of the COVID-19 pandemic to explore how highly educated breadwinner mothers talk about sharing domestic labor with their husbands. I compare semi-structured interviews with mothers who became breadwinners after their husband's job loss (N = 13) and mothers who were breadwinners since before the pandemic (N = 11). These groups revealed two variants of *neo-egalitarianism* towards appropriate gender roles, which describes desiring domestic equality that differs from daily sharing. Mothers who became breadwinners perceived domestic gender equality as fluctuating over the marriage. Mothers who were breadwinners since before the pandemic expected one parent to specialize in paid labor while the other specializes in primary caregiving throughout the marriage, but believed that a man or a woman can assume either role. How mothers perceive domestic gender equality has expanded as maternal earnings have gained importance in the family.

Key Words: gender, domestic labor, earnings, COVID-19, qualitative methods

The outbreak of the novel coronavirus (COVID-19) pandemic abruptly dismantled public infrastructure that working parents rely on—many schools moved to partial or full online learning from home and paid childcare became increasingly limited (Landivar et al. 2020; Moen, Pedtke, and Flood 2020). Swidler (1986) argues that such *unsettled times* are catalysts for cultural change because people are prompted to develop new *strategies of action*, or ways of organizing action to reach life goals within a given cultural context. Many families assumed the gender-traditional strategy of delegating rising domestic demands to mothers, and maternal labor force participation plummeted (Calarco et al. 2021; Collins, Landivar et al. 2020; Collins, Ruppanner et al. 2021; Dunatchik et al. 2021; Lyttelton, Zang and Musick 2020). However, some parents reported that maternal earnings were more important to the family during the pandemic than before the pandemic, suggesting that not all families relied on strategies of organizing household labor that disadvantaged women's careers (Mize, Kaufman, and Petts 2021). Yet, little is known about the domestic experiences of families that depended on maternal earnings during this unprecedented period of global history.

I ask how married breadwinner mothers—mothers who provide the bulk of income to their families—describe and make sense of how they shared domestic labor with their husband during COVID-19. I compare semi-structured interviews with mothers who became breadwinners during the pandemic after their husband's job loss to those with mothers who were breadwinners since before the pandemic because mothers whose family roles shifted may feel differently about gender roles and express more tension than mothers whose family roles were stable. By exploring how mothers in this understudied, but growing population perceive appropriate gender roles, this paper sheds light on why the gender revolution remains stalled in even the most gender-progressive families (England 2010).

The Incomplete Gender Role Reversal in Women Breadwinner Families

Breadwinning wives are a small but growing population. Data from the U.S. Current Population Survey report that the proportion of married women who are sole or primary earners tripled from 0.5 in 1972 to 0.16 in 2022 (Fry et al. 2023). Yet men partnered with higher-earning women tend not to do as much housework and childrearing as similarly situated women (Chesley and Flood 2017; Fauser 2019; Hook 2017; Latshaw and Hale 2016; Raley, Bianchi, and Wong 2012; van der Lippe, Treas, and Norbutas 2018). What explains this incomplete gender role reversal?

The *gender display* perspective suggests men's housework hours increase up until women earn as much as men and then decrease once women outearn men.. Brines (1994) theorizes that financially dependent men reduce their housework hours to compensate for gender deviance, but that breadwinner women are less threatened by their nonnormative family role than financially dependent men. In contrast, the *deviance neutralization* perspective theorizes that financially dependent husbands spend less and breadwinner wives spend more time on housework than other men and women to neutralize gender deviance (Greenstein 2000). However, these theories are contested (Gupta 2007) and only predict how different-sex couples share housework, but may not be adequate explanations for how they share childrearing or mental management of the home, termed *cognitive domestic labor* (Daminger 2019).

Men's and women's *gender ideologies*, which "defines what sphere a person *wants* to identify with (home or work) and how much power in the marriage one wants to have (less, more, or the same amount)," may determine how different-sex couples divide domestic labor (Hochschild 1989, p15). Breadwinner women may hold gender ideologies that lead them to think they should perform some domestic labor themselves. Hochschild (1989) classically defined three gender ideologies: 1) *egalitarian*, where men and women are expected to equally share

paid and domestic labor; 2) *transitional*, where men and women are expected to share paid and domestic labor, but men are expected to take primary responsibility for paid labor and women are expected to take primary responsibility for domestic labor; and 3) *traditional*, where women should are expected to specialize in domestic labor and men are expected to specialize in paid labor. However, these gender ideologies were conceptualized for dual-earning couples, and little is known about the gender ideologies of breadwinner women. Do they hold different gender ideologies beyond those described in prior scholarship? If so, do these different ideologies produce different family dynamics?

Breadwinner women's domestic arrangements may depend on how willing their husbands are to do domestic labor. Indeed, there is evidence that men's gender ideologies are more influential than women's in determining domestic roles (Ferree 1991; Hochschild 1989; Shelton and John 1996). It is possible that breadwinner women expect their husbands to do all the domestic labor, but that men resist. For example, men may agree to do masculine-typed household tasks, such as yardwork and car repairs, which tend to be infrequent, while refusing to do feminine-typed household tasks, such as cooking, household cleaning, laundry, grocery shopping, and mental management of the home, which tend to be routine (Daminger 2019; Schneider 2012; South and Spitze 1994). Some men may also perceive that their wives are naturally the best caregivers for the children (Calarco et al. 2021).

At the same time, some breadwinner women may be unwilling to relinquish control of domestic tasks to their husbands. Women may set higher standards than men for feminine-typed housework, such as household cleanliness, and/or claim higher competence in childrearing than men to retain control of these tasks because they perceive they reflect their competence as wives and mothers (Allen & Hawkins 1999). Men and women may also perceive that women have

higher domestic skills than do men from their role as mothers (Becker 1991) and because they spent more time doing feminine-typed housework as children than did men (South and Spitze 1994).

In addition, motherhood has a moral connotation (Damaske 2013; Gerson 2002). Despite societal devaluation of primary caregiving (Ridgeway and Correll 2004), middle- and upper-class mothers tend to characterize homemaking as selfless and working as self-serving, and often express guilt for not living up to the ideals of *intensive mothering,* which defines good mothering as spending considerable time, money, and effort on childrearing (Blair-Loy 2003; Damaske 2013; Hays 1996). Indeed, breadwinner mothers have expressed sadness, guilt, and jealousy toward their partners because they felt less available to their children than their partners (Chesley 2011, 2017; Meisenbach 2010).

Breadwinner mothers' descriptions and *accounts* for how they shared domestic labor with their husbands during COVID-19 may reveal how they perceive their family role. I consider accounts as excuses or justifications for actions that are inconsistent with role expectations (Scott and Lyman 1968). Damaske (2013) argues women use accounts to claim the moral high ground amid conflicting cultural schemas in contemporary motherhood, such as intensive mothering (Hays 1996) and the *ideal worker* (Acker 1990), or expectation of full commitment to paid work. Interview-based studies have shown that dual-earning, different-sex couples account for gender-based inequalities by referring to individual differences in competence and preferences for certain tasks (Collins 2019; Daminger 2020; Rao 2020; van Hooff 2011), and the belief that mothers are more critical than fathers to child wellbeing (Calarco et al. 2021; Rao 2020; Townsend 2002).

Domestic Resources and Job Loss During COVID-19

High-earning breadwinner women's s domestic decisions likely became more conscious during the first year of the pandemic when they lost access to paid domestic workers and had to reorganize domestic roles to compensate for this lost labor. There is some evidence that men and women alike spent more time on domestic labor during the pandemic than before the pandemic, which may be partially attributable to the decreased availability of paid domestic workers (Craig and Churchill 2021; Del Boca et al. 2020; Dunatchik et al. 2021; Lyttelton, Zang and Musick 2020; Zamberlan, Gioachin and Gritti 2021). Yet men partnered with higher-earning women still tended to spend less time on domestic labor than did women partnered with higher-earning men (Zamberlan, Gioachin and Gritti 2021), suggesting the incomplete gender role reversal in these households persisted.

Job loss was common during COVID-19, particularly among mothers (Collins, Landivar et al. 2020; Collins, Ruppanner et al. 2021). However, some fathers suffered job loss, prompting their wives to become breadwinners. Pre-pandemic interviews suggest that different-sex couples may not transition domestic labor from employed women to unemployed men because they perceive men's unemployment as temporary (Rao 2020). However, men who were unemployed during the pandemic may not have spent as much time searching for a new job as they might in a favorable job market. Indeed, there is some evidence that different-sex couples shared housework and childrearing more equally in the early months of the pandemic than in the fall of 2020, when fathers paid work hours tended to rise (Carlson and Petts 2022).

Current Study

What strategies of action did families depending on maternal earnings use to organize domestic labor during COVID-19? When breadwinner mothers performed domestic labor, how did they

make sense of it? This paper is the first to address these questions by comparing semi-structured interviews with mothers in dual-earning couples who became breadwinners during the pandemic after their husband's job loss to those with mothers who were breadwinners since before the pandemic. I contrast these two groups because mothers who recently became breadwinners may experience more tension as family roles shift than mothers whose breadwinner role was established before the pandemic. Existing literature has not explored how breadwinner mothers make sense of family roles, and this paper seeks to fill that gap.

The shock of the first year of the global pandemic is a strategic research site (Merton 1987) to explore how breadwinner mothers describe and account for domestic roles. People reorganized work and family life (Dunatchik et al. 2021; Sevilla and Smith 2020), which may prompt mothers to articulate meaning systems underlying domestic decisions that are implicit during "settled times" (Swidler 1986). I restrict my sample to mothers of young or school-aged children given school closures and limited childcare (Landivar et al. 2020; Lyttelton, Zang and Musick 2020; Moen, Pedtke and Flood 2020) made the pandemic more "unsettled" than it might have been for women without young or school-aged children (Swidler 1986).

Methods

Participants

The interviews analyzed here were conducted as part of a larger project for which I interviewed 167 parents between December 2020 and March 2021. I analyze a subset of 24 breadwinner mothers in different-sex marriages—13 in dual-earning couples who became sole earners after their husbands' job loss during the pandemic, and 11 who were primary or sole earners since before the pandemic. Primary earners (4 of 11) were married to men who worked less than 10 hours per week. I did not observe differences in the interviews of sole and primary earners. In

one case, a mother described her husband choosing to quit his job; this interview did not differ from those with mothers whose husbands lost their job. Given the sample size, this research is exploratory. The remaining interviews in the greater sample, not analyzed in this paper, were single parents and parents from families in which both members of the couple worked thirty or more hours per week.

I recruited participants by emailing workers at hospitals, law firms, universities, and primary and secondary schools with a solicitation for the study. This is not a random sample; however, I aimed for variability in job flexibility, essential worker status, and type of work. Roughly over one-quarter of the sample (7 of 24) were *essential workers*, or in jobs the government considered crucial to public infrastructure or the pandemic response. The solicitation email focused on work and family balance, avoiding language such as gender and housework to reduce the possibility that only people with strong feelings about domestic gender inequality would volunteer. I required participants to be employed, and living with a partner and one or more children aged ten or younger. I did not offer participants compensation.

Table 1 reports the demographics of the sample. Participants' ages ranged from 33 to 50 years, with an average age of 41 years. Most participants identified as non-Hispanic white (19 of 24). Participants had a college (2 of 24) or graduate degree (22 of 24). On average, my participants had two children and the youngest child in the household was five years old. Most (22 of 24) reported a family income of $150K or higher. Participants commonly worked as physicians (7 of 24), lawyers (5 of 24), and directors/managers (3 of 24). Other occupations included in the sample were professors, researchers, psychologists, and primary or secondary school teachers. Most participants telecommuted (16 of 24) during the pandemic.

INSERT Table 1 ABOUT HERE

My sample is highly educated, high-income, and mostly non-Hispanic white. Despite their privileges, these mothers are still worth considering because if they can't achieve work-family balance, then work-family balance may be less possible for other mothers. Another reason to focus on socioeconomically privileged families is because the pandemic made outsourcing less possible, disrupting a strategy many high-earning mothers use to balance paid work with family life. Finally, there is evidence that low-income couples tend to have traditional gender ideologies even when wives are breadwinners (Deutsch and Saxon 1998; Hochschild 1989). High-earning and highly educated breadwinner mothers may have progressive gender ideologies that have not yet been identified in the literature, given higher levels of education are associated with more egalitarian attitudes towards gender roles (Pampel 2011) and women breadwinners disrupt traditional gender roles.

Procedure

Participants completed a questionnaire hosted on the SelectSurvey platform with items on demographics, estimated hours spent on housework and childrearing in an average week, outsourcing, children's school status (in-person, hybrid, or fully remote) if applicable, paid work status (remote or partially or fully in-person), job characteristics, and more. Many survey items were adapted from existing questionnaires, such as the Panel Study of Income Dynamics and the American Life Panel, and drawn from validated measures, such as the Gender Role Beliefs Scale (Kerr and Holden 1996). The questionnaire prompted participants to indicate whether their circumstances changed with the pandemic. At the end of the survey, participants could provide contact information for a semi-structured interview.

I contacted willing participants within one day of survey completion. Interviews were conducted on the phone, Zoom, Microsoft Teams, and Google Meet. I asked questions such as,

"How has your parenting role changed during the pandemic?", "What are some of your biggest challenges during the pandemic?", "How does your spouse or partner support your work-family balance?", "Who is responsible for the cooking?", "Who is responsible for the cleaning?", "Who is responsible for supervising the children (and at-home education, if applicable)?", and more. Because the questionnaire provided extensive background information on my participants, I proceeded to the in-depth content of the interview protocol quickly, and my interviews ranged from thirty minutes to fifty minutes. I recorded all interviews with participant consent.

Data Analysis

I coded the transcripts using *flexible coding*, which combines inductive and deductive analytic strategies (Deterding and Waters 2021). After isolating sections of the interview transcript relevant to this paper (indexing) and conducting a close reading, I wrote memos of themes, emphasizing how these themes either reinforced or challenged existing theory. To begin thematic coding, I applied 25 demographic codes (attributes) for each participant. Some examples of these codes include age, race or ethnicity, education, job title, telecommuting status, number of children, childcare, housekeeper, and more.

Next, I coded how mothers described the couple's domestic roles and the accounts offered for this distribution. For each domestic activity (childrearing, cognitive domestic labor, housework), I coded whether the mother said the man contributes more, the woman contributes more, or the man and women contribute equally. Next, I coded how mothers accounted for these domestic roles. I noted whether there were domestic tasks mothers wanted to do, mothers had higher standards than men for, and/or mothers perceived men were unwilling to do. I also examined how mothers appraised and expressed feeling about the couple's domestic roles.

I lightly edited interview quotes for clarity, such as removing "um," "you know," and

"like," and attributed quotes to pseudonyms to protect participant anonymity. The headings of the results section represent how each domestic activity (childrearing, cognitive labor, housework) was influenced by the pandemic.

Results

How did the global outbreak of COVID-19 impact how different-sex couples that relied on maternal earnings share domestic labor? Despite critical differences in the duration and circumstances surrounding becoming a breadwinner, the two groups of mothers I interviewed described similar strategies for organizing rising domestic demands: fathers assumed more childrearing than mothers, mothers assumed more cognitive domestic labor than fathers, and housework was either shared or delegated to one parent. How these mothers made sense of their domestic roles revealed an attitude towards family roles not yet captured in the literature, called *neo-egalitarianism*, which has two variants. Most (80 percent) mothers who became breadwinners during the pandemic generally perceived domestic equality as fluctuating over the course of the marriage (variant 1). All mothers who were breadwinners since before the pandemic expected one parent to specialize in paid labor while the other specializes in primary caregiving throughout the marriage, but believed a man or woman could assume either role (variant 2).

COVID-19 Increased Men's Childrearing Responsibilities

As with many families across the globe, the mothers I interviewed described their children's schools transitioning to virtual instruction and/or losing childcare during the pandemic. They said these changes intensified fathers', and not mothers', childrearing demands.

Mothers who became breadwinners during the pandemic generally talked about their husband's job loss—and availability to assume the rising childrearing demands—as an

opportunity to replace the childcare workers they simultaneously lost. In many cases, the way these mothers talked about their circumstances suggested the first variant of neo-egalitarianism. They valued domestic gender equality, but perceived their husband's unemployment as a time during the marriage when unequal domestic roles were acceptable, and expected their husbands to assume most of the childrearing. For instance, Emily, a mother of two pre-school aged children, said, "I've been very fortunate—fortunate, unfortunate, I don't know—that my husband's job was impacted by the pandemic. So, he was able to be available to look after the kids more. So, he's been hands-on during the day." The first word Emily used was "fortunate" when describing her husband's job loss—an adverse life event—because he could replace the paid childcare the family formerly relied on. Emily rejected intensive parenting norms for both her husband and her, in alignment with gender egalitarianism:

> It's not my natural state to be with children all day, every day. I absolutely love them, they're amazing, but I'm not a stay-at-home mom. I'm not the best person I need to be in that moment. It's easier for a man to say. And he says that 'It's not my natural calling to be a stay-at-home dad.' I'm like, 'No, it's not.'

However, she expected her husband to assume the rising parenting demands while he was not working, "He was furloughed."

Madison, a mother of two school-aged children, provides another good example of the first variant of neo-egalitarianism. Madison said her husband "luckily" lost his job so that he can supervise the children while she works, "Luckily, he's been at home. [pause] I mean, I say 'luckily'—he's been unemployed this past year, so he's been home." Similar to Emily, Madison acknowledged that referring to her husband's job loss as fortuitous is contradictory in typical circumstances, but during the pandemic, these men's time were reallocated from paid work to fit

a family need. Madison expressed appreciation, rather than jealousy, towards her husband for being primarily responsible for the children, “It’s been great. If I need to come into the lab, he’s here at home to help the kids with school. So, it’s been very equal, and I couldn't have done it without him.” The couple’s roles were not equal—he specialized in childrearing while she specialized in paid work— but Madison perceived that this temporary work-family specialization during her husband’s unemployment did not contradict her egalitarian values towards family roles.

Other mothers echoed these sentiments. Maggie, a mother of two school-aged children, expressed egalitarian attitudes towards gender roles when talking about her husband, “He always has been an equal partner in our relationship. There’s no I do womanly roles and he does manly roles.” When I asked if the family had childcare, she said her husband was the childcare, “My husband lost his job in September, so yes.” Rather than expressing discomfort with this temporary inequality in parenting roles, Maggie said, “I feel very lucky.”

One mother, Melanie asked her husband to quit his job during the pandemic to address the rising childrearing demands with their two school-aged children. She appealed to the idea of fairness in the relationship when making this request:

> We just knew it was unsustainable for both of us to work … I said, ‘I have sacrificed for your career the whole time we’ve been together, and I need you to do it for me this time’ … He has been the stay-at-home parent.

Melanie preferred not being the primary caregiver:

> It’s so different and so much better than it used to be … If they [the children] were sick, it was always up to me to stay home with them … [Now] I can really just focus and get my work done and if I need to go lie down or something and

read, I can do that, and no one bothers me.

She perceived that prioritizing her career during the pandemic was a matter of equality over the course of the marriage, in alignment with the first variant of neo-egalitarianism.

Mothers who were breadwinners since before the pandemic talked about the difficulties their homemaker husbands faced as their primary caregiver role expanded. The way these mothers talked about their family roles aligned with the second variant of neo-egalitarianism. They expected one parent to specialize in paid work while the other specializes in primary caregiving throughout the marriage, but thought a man or a woman could assume either role. This contrasts with the first variant of neo-egalitarianism, in which mothers only expected their husband to be primarily responsible for the children while unemployed.

Rachel, a mother of two preschool-aged children, provides a good example of the second variant of neo-egalitarianism. She said her husband is a homemaker, "My husband was the primary caregiver prior to the pandemic and that continued." The family lost their nanny at the beginning of the pandemic, impacting her homemaker husband more than her, "That was a little bit of an adjustment for my husband because he was used to having a little bit more help … I see my kids more because I'm working from home but otherwise my responsibilities haven't really changed that much." She excused the gender deviance in the couple's work-family specialization by asserting breadwinning is more practical than dual-earning, "I think the pandemic is really just a stress test for a lot of people's choices … We always wanted to have a parent primarily home with our kids … You can't change the biological reality of people's need for sleep and children's need for their parents." While gender traditionalists also favor work-home specialization, Rachel did not discuss innate maternal or paternal suitability for certain family roles. She instead accounted for her husband's homemaker role by his enjoyment of activities at

home, “He’s definitely better suited to it because he has all these hobbies that he gets to pursue, and I don’t have hobbies and I wouldn’t have hobbies even if I did stay home. I’m just not a hobby person.”[5]

Janine, a mother of two school-aged children, provides another good example of the second variant of neo-egalitarianism. She said the pandemic impacted her homemaker husband more than her, “I’m the primary breadwinner and continued to be. So, in some ways, I would say that my world didn’t change significantly whereas his really did.” Janine’s family did not rely on childcare before or during the pandemic. However, the children’s school transitioned to virtual instruction, which she said was challenging for her homemaker husband:

> He went almost full-time into assisting with virtual school. As we say, he is an elementary school educational attendant … Occasionally, I chip in, but I would say he’s doing the lion’s share of the work … I think it’s been a lot for him as you can imagine with a six and a nine-year-old.

Rather than expressing jealousy towards her husband for having the most time with the children, Janine expressed gratitude that she made enough money for him to stay home with the children, “I’m exceptionally grateful for my situation that we have financial capability to do that.” She accounted for the couple’s gender deviance by her earnings, “we’ve been married almost ten years and when my nine-year-old was born he stayed at home with him early on because I made more money,” and did not discuss gender as an important determinant of family roles.

Wendy, a mother of three school-aged children, also said her family did not rely on childcare before or during the pandemic. She echoed that virtual school intensified her homemaker husband’s childrearing demands, “My youngest has … just regressed a lot—her

[5]Getting to pursue your hobbies is not usually considered part of the job for homemakers when they are women.

reading, her at math, everything … My husband works with her every day." The way Wendy talked about the family roles suggested the second variant of neo-egalitarianism. Wendy said that she was "lucky" that her husband chose to stay at home so that she could specialize in paid work, "I'm lucky because my husband has chosen to stay home with our kids full-time … We had three in diapers at the same time and not many guys would do that. He really wanted to support me in my career." Gender did not determine their specialized family roles.

Nina, a mother of two school-aged children, said of her family, "I'm the breadwinner. I work full-time and my husband normally stays home." She said virtual school intensified her husband's domestic demands, "Well, my kids aren't in school, so instead of having that chunk of the day to do kind of normal household activities, he ends up kind of managing kids all day and that includes educational content." The couple also no longer benefited from extended family supervising the children, "We have a lot of family in town, but people have been pretty conservative with exposures at work at the hospital." Nina talked about the adverse effect of these changes on her homemaker husband rather than talking about herself, "He had just started to have a little bit more free time when my older boy started kindergarten last year and he's got a lot of hobbies and things that have been on hold … That ended up kind of being the exact opposite this past year." When talking about family roles, Nina said she and her colleagues all "have stay-at-home husbands … we're all kind of lucky in a weird way with that," suggesting she wanted to specialize in paid work while her husband specializes in primary caregiving.

COVID-19 Increased Women's Cognitive Domestic Labor

Despite their gender-progressive parenting arrangements and reliance on maternal earnings, both groups of mothers said that mothers, rather than fathers, were primarily responsible for the mental management of the home both before and during the pandemic. In many cases, the

pandemic intensified cognitive domestic demands on mothers.

The mothers who became breadwinners during the pandemic in my sample expressed tension towards their husbands for not assuming the cognitive domestic labor because they believed their husbands should temporarily assume most of the domestic labor during their unemployment, in alignment with the first variant of neo-egalitarianism. From Emily's perspective, her unemployed husband expected her to plan his days with the children:

> Literally, literally I came on this call, and I got a text from my husband asking what time he needs to meet me at the doctors this afternoon because my youngest has got a nine-month checkup … He's asked for this information so many times this week … I mean, that hasn't shifted, that hasn't changed, [but] it's become more visible … The project management of it—the day-to-day. I'm like, 'And this is what's for lunch and this is for dinner, and this is what you need to prepare.'

Rather than accepting her role, Emily expressed frustration towards her husband for not assuming the cognitive domestic labor himself. She further suggested that having her unemployed husband replace childcare workers increased her cognitive domestic labor from before the pandemic, since paid childcare workers were better able to coordinate the children's schedules.

Patricia, a mother of two pre-school aged children, provides another good example of the first variant of neo-egalitarianism. She said her unemployed husband interrupted her paid workday to ask questions about household management, which caused fights:

> Little things like, 'Did you pay the gardener? Did you remember to send in the insurance check? Did you remember to do the driver's license renewals or

> whatever?' … I have had more than one fight where I'm like, 'I am the only person working in this house. Can you not interrupt me during my workday? It causes me to be more unproductive … I am income. Don't fuck with the income stream.'

Patricia wanted her husband to manage the household during his unemployment, "I've been trying to kind offload more of the home management—so paying the insurance bills or the driver's license renewals, those kind of things. I've been trying to offload more of that to him. [pause] I'm still working on that." From Patricia's perspective, however, her unemployed husband was reluctant to assume this role.

Another mother, Madison, said her cognitive domestic demands increased during the pandemic, which she referred to as her family's "neediness:"

> Between my husband and my kids—their neediness in terms of the need for me to be the one with the job and to schedule and to be the rock of the family has really grown, and so the demands that's placed on me in terms of making sure we've got plans for dinner and raising discussions about figuring out all kinds of family schedules and things that need to happen, and how do we get the kids outdoors today and how are we going to balance our schedules, all of that kind of lies on me … All of that takes up mental space.

Madison did not express frustration towards her unemployed husband in her interview. However, she suggested her husband was changing his behavior, "my husband is working on being a little more confident [with planning and organizing the household]," suggesting the couple perhaps discussed having him take on more cognitive domestic labor during his unemployment, in alignment with the first variant of neo-egalitarianism.

Unlike mothers who became breadwinners during the pandemic, the mothers who were breadwinners since before the pandemic I interviewed generally expected to do more cognitive domestic labor than their homemaker husbands. Although they believed that a man or a woman can specialize in either breadwinning or primary caregiving, in alignment with the second variant of neo-egalitarianism, many defaulted to traditional gender norms for cognitive domestic labor. They commonly expressed the belief that they are better at anticipating the needs of the family than their homemaker husbands, despite fathers being primary caregivers. Jenny, a mother of two school-aged children, justified doing the household management by her personality and job:

> I'm still managing, 'Did they get their physicals? Did they get their immunizations? And is their lunch packed?' … That is not a COVID thing, though, I've always just been in charge of that probably because of my personality and just with my job—I'm better with those things.

Carrie, a mother of two school-aged children, echoed this sentiment, "Some of the more organizing and executive function things, I think it's just my brain—that sort of, 'We need to do this' or 'We need to do that' … If I asked him to do things, he's very happy to do them, but he doesn't always think of them."

Gillian, a mother of two school-aged children, wanted more control over planning and organizing the home, but was impeded by the pandemic because her paid work hours increased:

> He tries to manage their quote unquote after school activities. It's been a bit of a source of tension because he doesn't do it the way I would like it done. I either have to do it the way I want or let him do it the way he wants, and I have been able to release that control because I understand it is what it is.

Gillian released control of managing the children's educational activities, but she believed she

would do a better job planning these activities than her homemaker husband.

One mother expressed mixed feelings about doing more cognitive domestic labor than her homemaker husband. Wendy avoided at-home school to encourage her husband to figure out homemaking on his own, "I picked up thirty extra shifts in this last year in our COVID unit just to get out of homeschooling … I'm like give me COVID over homeschooling any day! [laughs] … Just so he could figure things out … It is always easier for him to just let me do it." From Wendy's perspective, she had the highest domestic expertise, which was work she did not want to do, "I think it's sort of a natural dynamic where I see the needs and I want him to see them too and then jump to it and solve the problem without me asking him." Yet, she claimed she would not want to change the couple's "natural" dynamic, "I wouldn't want it any other way. I mean, sometimes it's exhausting but I am very organized … I like to have things done … It's so much more difficult for him—punctuality is not his gift. He's the classic absent-minded professor."

COVID-19 Increased Housework Demands, But Had a Mixed Effect on Housework Roles

While family roles for primary caregiving and cognitive domestic labor were distinct across interviews, how mothers said they shared rising housework demands with their husbands tended to be mixed. Some mothers retained their housekeepers, but most mothers described either sharing housework with their husbands or delegating the housework to the husband. How much housework these mothers described doing often depended on whether they perceived their husband was willing to do housework.

Some mothers who became breadwinners during the pandemic expressed frustration for continuing to be responsible for housework. These mothers valued domestic gender equality but expected their husband to temporarily do most of the domestic labor during his unemployment, in alignment with the first variant of neo-egalitarianism. When I asked Emily how she and her

husband share housework, she expressed frustration, "I think we have quite annoyingly gender-stereotyped roles around that." The psychologist said her husband did masculine-typed chores he enjoyed while she did feminine-typed chores she did not enjoy:

> He would say stuff like, 'I did DIY, and I gave an earthquake retrofit,' and he's doing all these things that he says are worth it and it's just, 'You just love that. You love hammering and banging and building things. I don't love cleaning.'

Emily complained about her husband's household cleanliness:

> I would come into the [rest of the] house after he looked after the kids all day and it would be an absolute disaster zone … My heart would sink looking at everything now I need to clean up and tidy up to start serving dinner. I'm like, 'What have you done all day? Like what?' I think about how it would be for me, alone with the kids all day—things are put away and the dishwasher is done.

Rather than accepting responsiblity of the housework, Emily questioned her husband's behavior. Notably, she compared his behavior to how she might behave if she were unemployed, instead of comparing the couple's division of housework to how her friends describe dividing housework with their husbands. Yet, it seemed, from Emily's perspective, her disapproval did not change her husband's behavior.

Chloe, a mother of three school-aged children, also said she continued to do housework during her husband's unemployment. Chloe said her husband cooked for the family, but that she shared household cleaning with him because she has higher standards of cleanliness than he does. With a hint of frustration in her voice, she said, "That's [household cleaning] still a balance. He does some of it and then I'll do the rest on my days off. We have different ideas of what clean is, so I think that's— [pause] I'm trying to say it as polite as I can." Her standards for

household cleanliness were so important to her that Chloe spent her limited time cleaning, "I've tried to let some of that go just because only having one day off a week—the last thing I want to be doing is cleaning." Rather than accepting sharing housework with her unemployed husband, Chloe asked him to do more household cleaning, "I'll usually say, 'Tomorrow's my day off, so make sure the house is really clean, so then there's only a few things I have to do when I get home tonight.'"

Other mothers who became breadwinners during the pandemic said they were able to temporarily transfer the bulk of the housework to their unemployed husbands, and expressed appreciation, rather than jealousy or discomfort, towards their husbands for assuming an unequal share of the housework. This aligns with the first variant of neo-egalitarianism, because these mothers expected their husbands to assume most of the domestic labor during their unemployment. Tanya, a mother of two school-aged children, said her husband started doing substantially more housework than she did during his unemployment:

> He's doing most of the meal preparation, doing a lot of the house cleaning maintenance, and because I have a more compromised immune system, he's also done almost all the grocery shopping … He's taken on a huge amount of the household work. I would say the breakdown is probably seventy-thirty.

Patricia retained her housekeeper during the pandemic, but bragged that her husband now cooks dinner, "He's basically taken over dinner preparation."

Melanie said that her husband had always been responsible for the cooking, but that she spends less time helping him with cooking now that he's unemployed. "His job was the cooking or at least being responsible for feeding everybody, and that hasn't changed … I did a lot more helping in the kitchen with cooking before he quit his job." Since his unemployment, Melanie

also said her husband replaced the family's housekeeper, "We had a cleaning person before the pandemic, and now I don't even see dirt … I was thinking the cleaning person was coming … He's been picking up a lot of the cleaning, the more in-depth cleaning." These mothers wanted their husbands to temporarily do most of the housework while unemployed, but only some husbands seemed willing in the eyes of mothers.

Many of the mothers who were breadwinners since before the pandemic described sharing housework with their homemaker husbands. Unlike mothers who became breadwinners during the pandemic, these mothers did not express tension towards their husbands for not doing all the housework. These mothers preferred work-family specialization where a man or a woman could be a breadwinner or a primary caregiver, in alignment with the second variant of neo-egalitarianism. Despite this specialization, some expected to share housework equally with their husbands. Nina said that household cleaning was "a pretty even split" and that the couple shared cooking, "My husband and I take turns cooking dinner. So, sometimes I'll get home and try and hurry up and make dinner or on the lucky nights when he's already cooked, I can relax a little bit." Although Nina did not like cooking, and described nights she did not have to cook as "lucky," she justified sharing cooking as a way to being supportive of her homemaker husband, "I've been cooking way more than I like to, but I think that's been a help to my husband."

Lauren, a mother of one school-aged child, provides another good example of how mothers who were breadwinners since before the pandemic account for doing some housework. Lauren said the pandemic increased the housework demands, but did not change the division, "My husband is a stay-at-home parent … We have far more chores because there's more dishes and things like that … He's still doing his [domestic] roles." Lauren justified sharing housework with her husband by having higher standards of cleanliness than him:

> There's always the balance of I want the kitchen to be clean twenty-four-seven and he's like, 'I'll get the dishes when the sink is full' … I have a lot of anxiety when things are piled and cluttered. So, I mean, it's not uncommon for me once or twice a day to have to do a toy clean up.

Rather than expecting her homemaker husband to be tidier, Lauren preferred delegating housework to her daughter, "We're terrible at housekeeping. Both of us. So, I'm going to give my seven-year-old chores."

Jenny also described sharing chores with her homemaker husband, which, like other mothers who were breadwinners since before the pandemic, she justified. The pandemic prompted her homemaker husband to do more housework, but the couple still shared:

> I'm still in charge of the things that was in charge of before, like grocery shopping and cooking dinner and packing lunches in the morning and doing the laundry. My husband has gotten much better since COVID about doing some of those things. He'll do grocery shopping, really helpful with laundry. He'll fold laundry, he does all of the laundry now.

Rather than expressing frustration, like some of the mothers who became breadwinners during the pandemic, she thought their arrangement was fortunate, "My husband and I share most of it [housework] equally … We tag team the best we can. I'm pretty lucky in that respect."

In other cases, mothers who were breadwinners since before the pandemic said their husbands did all the housework. When I asked Rachel who does the housework, she said, "he takes care of everything," and added, "I know how to solve all problems with women in the workplace and work life balance and it is having a stay-at-home husband." Janine replied to the same question, "Usually, my husband handles it [housework], so I don't have to deal with it."

Carrie echoed, “He just sort of takes care of everything.” When homemaker fathers did all the housework, mothers did not say much about these tasks, perhaps because they did not have to be aware of them.

Conclusion

In this paper, I explored the domestic narratives of breadwinner mothers, which are an understudied but growing population. I introduced a novel comparison—mothers in dual-earning couples who became breadwinners after their husband’s job loss and mothers who had been breadwinners since before the pandemic—during the “unsettled” time of COVID-19 (Swidler 1986) when domestic demands intensified (Landivar et al. 2020; Moen, Pedtke, and Flood 2020). I discovered a distinct way some mothers perceive family roles, which I call neo-egalitarianism.

Neo-egalitarianism has two variants. Mothers who became breadwinners during the pandemic perceived equality as fluctuating throughout the marriage, such that couples can trade off who takes primary responsibility of domestic labor (Becker and Moen 1999), representing the first variant. Mothers who were breadwinners since before the pandemic preferred having one parent specialize in breadwinning while the other specializes in primary caregiving, but believed that a man or a woman can assume either role, representing the second variant. Ultimately, my finding illustrate that how mothers perceive gender egalitarianism has expanded as maternal earnings have become increasingly important to the family (Mize, Kaufman, and Petts 2021; Fry et al. 2023).

My findings also help to explain the incomplete gender role reversal in households depending on maternal earnings (Chesley and Flood 2017; Fauser 2019; Hook 2017; Latshaw and Hale 2016; Raley, Bianchi, and Wong 2012; van der Lippe, Treas, and Norbutas 2018). Although unemployed fathers replaced childcare workers instead of looking for a new job, some

mothers believed their husbands were resistant to doing other domestic tasks, prompting mothers to do domestic labor they did not want to do. In eyes of mothers, men's financial dependence on them did not alter the gender-based balance of power in negotiating domestic roles (Greenstein 1996; Ferree 1991; Hochschild 1989; Shelton and John 1996).

Some mothers who became breadwinners during the pandemic suggested that their husbands did some household cleaning, but that mothers largely still did this task because men had unacceptably low standards (Allen & Hawkins 1999; South and Spitze 1994). Many mothers expressed frustration towards their husbands for not meeting their standards and some described asking their husbands to do more household cleaning, suggesting that they wanted to relinquish control of this task. It is possible that these mothers perceive that household cleanliness reflects their competence in feminine family roles; however, if so, my findings suggest that how mothers evaluate their competence as wives and mothers does not fully depend on the opinions of those outside of the family because the home was not visible to others during COVID-19 (Blair-Loy 2003; Damaske 2013; Hays 1996).

The mothers who were breadwinners since before the pandemic in my sample flipped traditional gender roles for breadwinning and primary caregiving, but many defaulted to traditional gender norms for other domestic tasks. All described doing most of the cognitive domestic labor (Daminger 2019). Most claimed they were better at anticipating family needs than their husbands. Interview-based studies of dual-earning couples have shown that women claim higher domestic competence than their husbands to justify domestic gender inequality (Collins 2019; Daminger 2020; van Hooff 2011). However, my findings demonstrate that some mothers claim higher domestic competence even when their husbands are homemakers who specialize in domestic life. These mothers contribute to the incomplete gender role reversal in

their households because they perceive the home as a feminine domain.

Unlike mothers who became breadwinners during the pandemic, mothers who were breadwinners since before the pandemic did not express frustration towards their husbands when mothers did domestic labor. This may be based on the duration of the breadwinner role. It is possible that some mothers expected their homemaker husbands to do all the domestic labor earlier in the marriage, but lowered their expectations to protect the marriage (Hochschild 1989). However, further research is needed to examine how breadwinners mothers perceive domestic roles over the course of a coresidential relationship.

My study does not support the explanation for women's behavior in the deviance neutralization perspective of housework allocation because the mothers I interviewed did not suggest they compensated for violating feminine norms (Greenstein 2000). None avoided labeling themselves as providers to protect their husband's identities (Chesley 2017; Meisenbach 2010; Tichenor 2005). Nor did they preserve their role as primary caregivers or express guilt or jealousy towards their husbands for having more time with the children than they did, in contrast with intensive mothering (Chesley 2011, 2017; Hays 1996; Meisenbach 2010; Tichenor 2005). It is possible that my study is documenting change over time in how breadwinner mothers perceive their role in the family.

Although this paper provides insight into breadwinner mothers' domestic narratives, it has limitations. Parents' time constraints and social distancing requirements during the pandemic made data collection challenging, explaining why I only have interviews with mothers instead of both mothers and fathers, and did not pair my interviews with ethnographic data. These limitations should be kept in mind when looking at the results. Had I interviewed fathers, I could identify whether they claimed or assumed incompetence to avoid domestic labor (Miller and

Carlson 2016). I was unable to fully examine the gender display perspective because I did not interview fathers (Brines 1994). Participants may provide less biased answers if they know their partner will be interviewed. For example, participants may present a *family myth*, or a version of reality that obscure the truth about the fairness of the division of domestic labor (Hochschild 1989), which I am unable to corroborate with the perspective of a partner, or observe myself.

This paper also cannot speak to working class families. Mothers from working class families may be more likely to hold traditional or transitional gender ideologies than the mothers in my sample, which may increase domestic gender inequality and change how these mothers make sense of domestic arrangements (Deutsch and Saxon 1998; Miller and Carlson 2016). My sample also lacks representation of breadwinner mothers of color. Future research should investigate how both breadwinner mothers' and financially dependent fathers' describe and make sense of domestic roles, explore class-based differences, and attend to racial/ethnic differences.

Despite these limitations, this paper reveals two variants of an expansion in mothers' perceptions of equality in relationships. This paper also helps to explain the incomplete gender role reversal in women breadwinner households. According to the mothers I interviewed, financially dependent fathers will assume primary caregiving, but many do not participate fully in housework and/or cognitive domestic labor even when mothers express discontent. Some breadwinner mothers justify performing domestic tasks by claiming higher standards and domestic expertise than financially dependent fathers. The gender revolution remains stalled in these families because despite breadwinning mothers' progress towards gender egalitarianism, many fathers have not advanced at the same pace and some mothers perceive the home as a feminine domain.

Table 1. Demographics of Financial Provider Mothers Interviewed (N=24)

	Mothers who became primary earners during the pandemic after their husband's job loss (N=13)	Mothers who were primary earners since before the pandemic (N=11)
Number of Children	2	2
Average Age of the Youngest Child	5	6
Average Age	40	42
Non-White Race/Ethnicity	3 (3/13)	2 (2/11)
Education		
College	1 (1/13)	1 (1/11)
Graduate Degree	12 (12/13)	10 (10/11)
Family Income of $150K+	7 (7/13)	7 (7/11)
Occupation		
Physician	2 (2/13)	5 (5/11)
Lawyer	4 (4/13)	1 (1/11)
Director/Manager	1 (1/13)	2 (2/11)
Other	6 (6/14)	3 (3/11)
Telecommuted During the Pandemic	9 (9/13)	7 (7/11)

Appendix: Research Instruments

COVID-19 Family and Work Survey Instrument

Note: cmh = Chaitra Hardison, akc = Angela Clague

Screening Questions

Do you have a child 10 years of age or younger?
□ Yes
□ No [If NO→ Excluded from study]

Are you currently employed?
□ Yes
□ No [If NO→ Excluded from study]

Demographics

1. What is your gender?
   □ Male
   □ Female
   [source: American Life Panel]

2. What is your birth year?
   [Dropdown: 1900-2002]
   [source: American Life Panel]

3. Do you consider yourself Hispanic or Latino?
   □ Yes
   □ No [source: American Life Panel]

4. What is your race? Check all that applies.
   □ White
   □ Black or African American
   □ American Indian or Alaskan Native
   □ Asian or Pacific Islander
   □ Other [source: COVID Pulse survey]

5. What is the highest level of school you have completed or the highest degree you have received?
   □ Less than High School
   □ High School Degree or GED
   □ Some College, but no degree
   □ Associate Degree in college Occupational/vocational program
   □ Associate Degree in college Academic program
   □ Bachelor's Degree (For example: BA, AB, BS)

□ Master's Degree (For example: MA, MS, MEng, MEd, MSW, MBA)
□ Professional Degree (For example: MD, DDS, DVM, LLB, JD)
□ Graduate degree (For example: PhD, EdD)
[source: American Life Panel, modified to exclude less than high school categories]

6. What state do you live in? [Dropdown]
[source: akc]

7. Do you live with a spouse or partner?
□ Yes
□ No

8. What is your marital status?
□ Married
□ Separated
□ Divorced
□ Widowed
□ Never Married
[source: American Life Panel, COVID-19 Pulse]

9. What is your partner or spouses' gender?
□ Male
□ Female
[source: cmh] [SKIP if Q7==NO]

10. What is your political ideology?
□ Extremely Liberal
□ Liberal
□ Slightly Liberal
□ Moderate/middle of the road
□ Slightly Conservative
□ Conservative
□ Extremely Conservative
[source: ANES]

11. What is your political party affiliation?
□ Democratic Party
□ Republican Party
□ None or 'independent'
□ Other
[source: ANES]

12. Do you consider yourself religious?
□ Member of a religious group
□ Atheist, agnostic or 'none'
[cmh]

Pandemic Circumstances and Opinions

13. **Since January 2020**, have you had an illness that you think was or could be the coronavirus (COVID-19)?
    - ☐ Yes, and I've had it confirmed by a healthcare provider (either with or without testing)
    - ☐ I got sick, but I don't know if it was the coronavirus
    - ☐ I thought I had the coronavirus, but later found out it wasn't the coronavirus
    - ☐ No
    - ☐ I don't know

    [source: American Life Panel]

14. Do you personally know anyone that you think or know has had the coronavirus (COVID-19)?
    - ☐ Yes, I personally know someone who has had the coronavirus
    - ☐ Yes, I personally know someone who may have had the coronavirus, but I'm not sure
    - ☐ No, I don't personally know anyone that I think or am certain has had the coronavirus

    [source: American Life Panel]

15. How worried are you that you or a member of your household will contract the coronavirus (COVID-19)?

Not at all Concerned	Slightly Concerned	Somewhat Concerned	Moderately Concerned	Extremely Concerned
1	2	3	4	5

[source: cmh; format inspired by an American Life Panel item; uses scale from Vagias, Wade M. (2006)]

16. Are you or is anyone else in your household at high risk of severe illness from the coronavirus (COVID-19)?

    High Risk: over 60, or has one of the following conditions:

    - *Asthma*
    - *Smoking*
    - *Type 1 or 2 diabetes*
    - *Hypertension or high blood pressure*
    - *Obesity (body mass index of 30 or higher)*
    - *Pregnancy*
    - *COPD (chronic obstructive pulmonary disease)*
    - *Weakened immune system or Immunocompromised state (e.g., immune system disorder, recovering from major surgery, immunosuppressant medications, solid organ transplant, etc.)*
    - *Serious heart conditions (heart failure, coronary artery disease, or cardiomyopathies)*
    - *Cancer*
    - *Chronic kidney disease*
    - *Sickle cell disease*
    - *Cystic fibrosis Cerebrovascular disease*
    - *Dementia*
    - *Liver disease*
    - *Thalassemia*
    - *Any other condition that you believe is high risk.*

□ Yes

□ No

[source: cmh; https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html]

17. How many total people – adults and children – **currently** live in your household, including yourself? Please enter a number.
[source: COVID Pulse]

18. How many people under 18 years-old currently live in your household? Please enter a number.
[source: COVID Pulse]

[IF Q18==1 GOTO 19; ELSEIF Q18>1 GOTO 19]

19. How old is your child?
[Dropdown: 1-17]
[source: akc]

[SKIP TO Q20]

20. How old is the youngest child?
[Dropdown: 1-17]
[source: Panel Study of Income Dynamics; American Community Survey]

21. How old is the oldest child?
[Dropdown: 1-17]
[source: American Community Survey]

22. **Before the COVID-19 pandemic (pre-March 2020)**, who has been responsible for providing childcare for the children in your household? (check all that apply)
□ Me
□ My spouse/partner
□ Cares for self
□ Daycare
□ School, after-school program, or summer camp
□ Another member of my household
□ Another relative who is not a member of my household
□ A non-relative such as a friend, neighborhood, sitter, nanny or au pair
□ Other (specify) ___
[source: American Life Panel; modified for before the pandemic]

23. **In the past 7 days**, who has been responsible for providing childcare for the children in your household? (check all that apply)
□ Me
□ My spouse/partner
□ Cares for self
□ Daycare

□ School, after-school program, or summer camp
□ Another member of my household
□ Another relative who is not a member of my household
□ A non-relative such as a friend, neighborhood, sitter, nanny or au pair
□ Other (specify) ___
[source: American Life Panel]

24. How did the coronavirus pandemic affect how the children in this household received education during the **2019-2020** school year? *Select all that apply.*
□ Classes normally taught in person at the school were canceled
□ Classes normally taught in person moved to a distance-learning format using online resources, either self-paced or in real time
□ Classes normally taught in person moved to a distance-learning format using paper materials sent home to children
□ Classes normally taught in person changed in some other way, please explain: _____
□ The coronavirus pandemic did not affect how children in this household receive education
[Source: COVID-19 Pulse, modified for previous year]

25. How has the coronavirus pandemic affected how the children in this household have received education over the **2020-2021** school year? *Select all that apply.*
□ Classes normally taught in person at the school were canceled
□ Classes normally taught in person moved to a distance-learning format using online resources, either self-paced or in real time
□ Classes normally taught in person moved to a distance-learning format using paper materials sent home to children
□ Classes normally taught in person changed in some other way, please explain: _____
□ The coronavirus pandemic did not affect how children in this household receive education
[Source: COVID-19 Pulse]

[IF Q25==1, 2 or 3, GOTO Q26, ELSE GOTO 27]

26. Have in person classes resumed?
□ Yes, and my children are attending school in person **fulltime**
□ Yes, and my children are attending school in person **part-time**
□ No
□ Other (please explain)
[source: cmh]

27. Were any of your children enrolled in daycare or some other childcare facility that closed because of the coronavirus (COVID-19) pandemic?
□ Yes, and it is still closed.
□ Yes, but it re-opened.
□ No
□ Not applicable
[source: American Life Panel, modified to only look at childcare and allow them to reopen]

[IF Q27==No OR Q27==Yes, and it is still closed GOTO Q28; ELSE GOTO Q29]

28. Compared with when they were attending in-person school or in daycare (or some other childcare facility), how much time are you spending on each of the following activities?

	Much Less	Somewhat Less	About the Same	Somewhat more	Much More
Care and Supervision of your children	1	2	3	4	5
Helping your children with learning activities provided by their schools or childcare centers	1	2	3	4	5

[source: American Life Panel item; slight change in the original scale using examples from Vagias, Wade M. (2006)]

29. In a typical week **during the coronavirus (COVID-19) pandemic:**

How many hours do you typically spend…	**Number of Hours**
Taking care of your children on **workdays**	[Dropdown]
Taking care of your children on your **days off**	[Dropdown]
Doing housework, for example, cooking, cleaning and other work around the house	[Dropdown]
How many hours does your spouse or partner typically spend… [SKIP if Q7==NO]	
Taking care of your children on **workdays**	[Dropdown]
Taking care of your children on your **days off**	[Dropdown]
Doing housework, for example, cooking, cleaning and other work around the house	[Dropdown]

Between you and your spouse/partner… [SKIP if Q7==NO]	My spouse/partner has the greatest responsibility	I share this responsibility equally with my spouse/partner	I have the greatest responsibility
Who is responsible for the cooking in the household?	1	2	3
Who is responsible for the cleaning in the household?	1	2	3

[source: cmh, akc, Panel Study of Income Dynamics; DiRenzo, M. S., Greenhaus, J. H., & Weer, C. H. (2011). Job level, demands, and resources as antecedents of work–family conflict. *Journal of Vocational Behavior, 78*(2), 305-314. doi:10.1016/j.jvb.2010.10.002, edited to include "during the pandemic"]

30. During **the coronavirus (COVID-19) pandemic**, have you received maid service or cleaning?
    - ☐ Yes, every week
    - ☐ Yes, every two weeks
    - ☐ Yes, once month
    - ☐ Yes, less than once a month
    - ☐ No

31. Just to confirm that your survey is reporting correctly, please choose strongly agree.

Strongly Disagree	Disagree	Neither Disagree or Agree	Agree	Strongly Agree
1	2	3	4	5

32. How would you describe your gender ideology? [SKIP if Q7==NO]

	Strongly Disagree			Undecided			Strongly Agree
It is disrespectful to swear in the presence of a lady.	1	2	3	4	5	6	7

The initiative in courtship should usually come from the man.	1	2	3	4	5	6	7
Women should have as much sexual freedom as men.	1	2	3	4	5	6	7
Women with children should not work outside the home if they don't have to financially.	1	2	3	4	5	6	7
The husband should be regarded as the legal representative of the family group in all matters of law.	1	2	3	4	5	6	7
Except perhaps in very special circumstances, a man should never allow a woman to pay the taxi, buy the tickets, or pay the check.	1	2	3	4	5	6	7
Men should continue to show courtesies to women such as holding open the door or helping them on with their coats.	1	2	3	4	5	6	7
It is ridiculous for a woman to run a train and a man to sew clothes.	1	2	3	4	5	6	7
Women should be concerned with their duties of childbearing and housetending, rather than with the desires for professional and business careers.	1	2	3	4	5	6	7
Swearing and obscenity is more repulsive in the speech of a woman than a man.	1	2	3	4	5	6	7

[10-item GRBS, Brown and Gladstone, 2012, *Development of a Short Version of the Gender Role Belief Scale,* International Journal of Psychology and Behavior, 2(5): 154-158]

Employment

33. How would you describe your occupation in your MAIN paid job over the past month? For example, plumber, typist, farmer.

    _____

    [source: American Life Panel]

34. Over the past month, roughly how many hours did you work per week?
    [Dropdown: 0-99]
    [source: Current Population Survey]

35. Over the past month, where did you typically work?

□ I mainly work at my workplace (e.g., an office, hospital, servicing people's homes, etc.)
□ I work equally in my workplace and at home
□ My organization does not require at-home work, but I mainly work from home
□ My organization requires at-home work
[source: akc]

36. **Before the COVID-19 pandemic (pre-March 2020)**, would you characterize your job in the following ways:

		Strongly Agree			Strongly Disagree
a.	I had the schedule flexibility I needed at work to manage my personal and family responsibilities.	1	2	3	4
b.	I was given a lot of freedom to decide how I do my own work.	1	2	3	4
c.	My work schedule or shift met my needs.	1	2	3	4
d.	I had a lot of say about what happens on my job.	1	2	3	4
e	It was hard for me to take time off during your workday to take care of personal or family matters	1	2	3	4
f	I had the freedom to work from home.	1	2	3	4

[source: a-d from the 1977 Quality of Employment Survey (Quinn & Staines, 1979) edited for past tense as used in Jung Jang, S., Zippay, A., & Park, R. (2012). Family Roles as Moderators of the Relationship Between Schedule Flexibility and Stress. *Journal of Marriage and Family, 74*(4), 897-912. doi:10.1111/j.1741-3737.2012.00984.x, e/f created by akc]

37. **Since the COVID-19 pandemic**, would you characterize your job in the following ways:

		Strongly Agree			Strongly Disagree
a.	I have the schedule flexibility I need at work to manage my personal and family responsibilities.	1	2	3	4
b.	I am given a lot of freedom to decide how I do my own work.	1	2	3	4
c.	My work schedule or shift meets my needs.	1	2	3	4
d.	I have a lot of say about what happens on my job.	1	2	3	4
e	It is hard for me to take time off during your workday to take care of personal or family matters	1	2	3	4
f	I have the freedom to work from home.	1	2	3	4

[source: a-d from the 1977 Quality of Employment Survey (Quinn & Staines, 1979) as used in Jung Jang, S., Zippay, A., & Park, R. (2012). Family Roles as Moderators of the Relationship Between Schedule Flexibility and Stress. *Journal of Marriage and Family, 74*(4), 897-912. doi:10.1111/j.1741-3737.2012.00984.x, e/f created by akc]

38. **Before the COVID-19 pandemic (pre-March 2020)**, indicate how much control you had over aspects of your work time:

		None				A great deal
a.	When you begin and end each workday or work week	1	2	3	4	5
b.	The number of hours you work each week	1	2	3	4	5
c.	When you can take a few hours off	1	2	3	4	5
d.	When you take vacations or days off	1	2	3	4	5

[source: Thomas, L. T. & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6-15.]

39. **Since the COVID-19 pandemic**, indicate how much control you have had over aspects of your work time:

		None				A great deal
a.	When you begin and end each workday or work week	1	2	3	4	5
b.	The number of hours you work each week	1	2	3	4	5
c.	When you can take a few hours off	1	2	3	4	5
d.	When you take vacations or days off	1	2	3	4	5

[source: Thomas, L. T. & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6-15.]

40. **Thinking about your job in the past month**, indicate your level of satisfaction with:

		Very dissatisfied				Very satisfied
a.	The way you divide your time between work and personal or family life	1	2	3	4	5
b.	The way you divide your attention between work and home	1	2	3	4	5
c.	How well your work life and your personal or family life fit together	1	2	3	4	5
d.	Your ability to balance the needs of your job with those of your personal or family life	1	2	3	4	5
e	The opportunity you have to perform your job well and yet be able to perform home-related duties adequately.	1	2	3	4	5

[source: Valcour, M. (2007). Work-based resources as moderators of the relationship between work hours and satisfaction with work-family balance. *Journal of Applied Psychology, 92*(6), 1512–1523. https://doi.org/10.1037/0021-9010.92.6.1512]

41. **Thinking about your job in the past month**, to what extent do you agree or disagree with the following statements?

		Strongly Disagree						Strongly Agree
a.	The demands of my work interfere with my home and family life.	1	2	3	4	5	6	7
b.	The amount of time my job takes up makes it difficult to fulfill family responsibilities.	1	2	3	4	5	6	7
c.	Things I want to do at home do not get done because of the demands my job puts on me.	1	2	3	4	5	6	7
d.	My job produces strain that makes it difficult to fulfill family duties.	1	2	3	4	5	6	7
e.	Due to work-related duties, I have to make changes to my plans for family activities.	1	2	3	4	5	6	7
f	The demands of my family or spouse/partner interfere with work-related activities.	1	2	3	4	5	6	7
g	I have to put off doing things at work because of demands on my time at home	1	2	3	4	5	6	7
h	Things I want to do at work don't get done because of the demands of my family or spouse/partner.	1	2	3	4	5	6	7
i	My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime.	1	2	3	4	5	6	7
j	Family-related strain interferes with my ability to perform job-related duties	1	2	3	4	5	6	7

[source: Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology, 81*(4), 400–410. https://doi.org/10.1037/0021-9010.81.4.400]

42. For each question, indicate the score that corresponds to your response

		Never	A Few Times per Year	Once a Month	A Few Times per Month	Once a Week	A Few Times per Week	Everyday
a.	I feel emotionally drained by my work.	0	1	2	3	4	5	6
b.	Working with people all day long requires a great deal of effort.	0	1	2	3	4	5	6
c.	I feel like my work is breaking me down	0	1	2	3	4	5	6
d.	I feel frustrated by my work.	0	1	2	3	4	5	6
e.	I feel I work too hard at my job.	0	1	2	3	4	5	6
f	It stresses me too much to work in direct contact with people.	0	1	2	3	4	5	6
g	I feel like I'm at the end of my tether	0	1	2	3	4	5	6

[source: Maslach Burnout Inventory]

43. **Thinking about your organization's philosophy over the past month**, to what extent do you agree that each of the following statements represent the philosophy or beliefs of your organization?
Remember, these are not your own personal beliefs—but pertain to what you believe is the philosophy of your organization

		Strongly Disagree				Strongly Agree
a.	Work should be the primary priority in a person's life	1	2	3	4	5
b.	Long hours inside the office are the way to achieving advancement	1	2	3	4	5
c.	It is best to keep family matters separate from work	1	2	3	4	5
d.	It is considered taboo to talk about life outside of work	1	2	3	4	5
e.	Expressing involvement and interest in nonwork matters is viewed as healthy	1	2	3	4	5
f	Employees who are highly committed to their personal lives cannot be highly committed to their work	1	2	3	4	5
g	Attending to personal needs, such as taking time off for sick children is frowned upon	1	2	3	4	5
h	Employees should keep their personal problems at home.	1	2	3	4	5
i	The way to advance in this company is to keep nonwork matters out of the workplace	1	2	3	4	5
j	Individuals who take time off to attend to personal matters are not committed to their work	1	2	3	4	5
k	It is assumed that the most productive employees are those who put their work before their family life	1	2	3	4	5
l	Employees are given ample opportunity to perform both their job and their personal responsibilities well	1	2	3	4	5
m	Offering employees flexibility in completing their work is viewed as a strategic way of doing business	1	2	3	4	5

n	The ideal employee is the one who is available 24 hours a day	1	2	3	4	5

[source: Allen, T. D. (2001). Family-Supportive Work Environments: The Role of Organizational Perceptions. *Journal of Vocational Behavior, 58*(3), 414-435. doi:10.1006/jvbe.2000.1774]

44. **Thinking about your job in the past month**, to what extent do you agree or disagree with the following statements?

		Strongly Disagree				Strongly Agree
a.	My supervisor is willing to listen to my problems in juggling work and nonwork life.	1	2	3	4	5
b.	My supervisor takes the time to learn about my personal needs	1	2	3	4	5
c.	My supervisor makes me feel comfortable talking to him or her about my conflicts between work and nonwork	1	2	3	4	5
d.	My supervisor and I can talk effectively to solve conflicts between work and nonwork issues	1	2	3	4	5
e.	I can depend on my supervisor to help me with scheduling conflicts if I need it	1	2	3	4	5
f	I can rely on my supervisor to make sure my work responsibilities are handled when I have unanticipated nonwork demands	1	2	3	4	5
g	My supervisor works effectively with workers to creatively solve conflicts between work and nonwork	1	2	3	4	5
h	My supervisor is a good role model for work and nonwork balance.	1	2	3	4	5
i	My supervisor demonstrates effective behaviors in how to juggle work and nonwork balance.	1	2	3	4	5
j	My supervisor demonstrates how a person can jointly be successful on and off the job.	1	2	3	4	5
k	My supervisor thinks about how the work in my department can be organized to jointly benefit employees and the company.	1	2	3	4	5
l	My supervisor asks for suggestions to make it easier for employees to balance work and nonwork demands	1	2	3	4	5
m	My supervisor is creative in reallocating job duties to help my department work better as a team	1	2	3	4	5
n	My supervisor is able to manage the department as a whole team to enable everyone's needs to be met.	1	2	3	4	5

[source: Hammer, L., Kossek, E., Yragui, N., Bodner, T., & Hanson, G. (2009). Development and Validation of a Multidimensional Measure of Family Supportive Supervisor Behaviors (FSSB). *Journal of management, 35*, 837-856. doi:10.1177/0149206308328510]

45. **Thinking about your job in the past month**, how much can you count on these people to help you feel better when you experience work-related problems?

		Not at all			Very Much
a.	Immediate supervisor	1	2	3	4
b.	Other people at work	1	2	3	4
c.	Your partner	1	2	3	4
d.	Other family members	1	2	3	4
e.	Friends	1	2	3	4

[source: Sargent, Leisa D. and Terry, Deborah J. (2000) The moderating role of social support is Karasek's job strain model. *Work & Stress*, 14(3), 245-261)]

46. What is your spouse or partner's current employment situation?
    - ☐ Working Now
    - ☐ Unemployed and looking for work
    - ☐ Temporarily laid off, on sick or other leave
    - ☐ Disabled
    - ☐ Retired
    - ☐ Homemaker
    - ☐ Other

    [source: American Life Panel]
    [HIDE IF Q7==No]
    [IF Q46-==Working Now, GOTO 47, ELSE GOTO Q49]

47. How would you describe your spouse or partner's occupation in his/her MAIN paid job over the past month? For example, plumber, typist, farmer. [SKIP if Q7==NO]

    _____

    [source: American Life Panel]
    [HIDE IF Q7==No]

48. Over the past month, roughly how many hours does your spouse or partner work per week? [Dropdown: 0-99] [SKIP if Q7==NO]
    [source: Current Population Survey]
    [HIDE IF Q7==No]

49. **In 2019** what was your total household income before taxes? Select only one answer
    - ☐ Less than $25,000
    - ☐ $25,000-$34,999
    - ☐ $35,000-$49,999
    - ☐ $50,000 to $74,999
    - ☐ $75,000 to $99,999
    - ☐ $100,000 to $149,000
    - ☐ $150,000-$199,999
    - ☐ $200,000 and above

    [source: COVID Pulse]

Write-In Response Questions

*The following question are about your **current circumstances** during the COVID-19 pandemic. Please answer as honestly as you can. Be as descriptive as possible.*

50. What have been your biggest challenges balancing work and family during the pandemic?
51. What are the top 5 activities with your family that get disrupted the most by work?
52. What are the top 5 work activities that get interrupted most often by family?
53. What do you think employers could do better for parents during the pandemic?

Final Question

53. Would you be willing to participate in a semi-structured interview?
   - ☐ Yes
   - ☐ No

[IF Q53==Yes, GOTO 54, ELSE GOTO END]

54. Please provide your contact information (email address or phone number) so that a member of the study team can contact you to schedule an interview.

Interview Protocol

1. How have your parenting responsibilities changed because of the pandemic?
    a. Childcare arrangements
    b. Children's education
2. What have been some of your biggest challenges balancing work and family during the pandemic?
3. How does your spouse or partner help you to balance work and family?
4. How do you and your spouse or partner share household labor?
    a. Who is responsible for supervising the children (and at-home education, if applicable)? Please explain.
        i. Would you say s/he does more than you do? Please explain.
    b. Who tends to do the housework? Please explain.
        i. Who is responsible for the cooking?
            1. Would you say s/he does more than you do? Please explain.
        ii. Who is responsible for the cleaning?
            1. Would you say s/he does more than you do? Please explain.
5. In what was do you think work has interfered with the quality time you spend with your family?
    a. You mentioned [ACTIVITY FROM THE SURVEY] in your survey response. Can you tell me a little more about that?
6. In what ways do you think your family has interrupted your work?
    a. You mentioned [ACTIVITY FROM THE SURVEY] in your survey response. Can you tell me a little more about that?
7. How supportive has your supervisor been over the pandemic?
8. How supportive have your colleagues been over the pandemic?
9. How well has your organization responded to the pandemic circumstances?
10. How do parents in your district feel about returning to in person school or remaining remote? [TEACHERS ONLY]
11. How have your billable hours been impacted during the pandemic? [LAWYERS ONLY]
12. What do you think employers could do better for parents during the pandemic, generally speaking?
13. Are there any positives for you and your family over the pandemic?

References

Acker, Joan. 1990. "Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations." *Gender & Society* 4(2):39-158.

Allen, Sarah M., and Alan J. Hawkins. 1999. "Maternal Gatekeeping: Mothers' Beliefs and Behaviors that Inhibit Greater Father Involvement in Family Work." *Journal of Marriage and the Family* 199-212.

Becker, Gary. 1991. *A Treatise on the Family: Enlarged Edition*. Cambridge, MA: Harvard University Press.

Becker, Penny Edgell, and Phyllis Moen. 1999. "Scaling back: Dual-earner couples' work-family strategies." *Journal of Marriage and the Family* 95-1007.

Blair-Loy, Mary. 2009. *Competing Devotions: Career and Family Among Women Executives*. Cambridge, MA: Harvard University Press.

Brines, Julie. 1994. "Economic Dependency, Gender, and the Division of Labor at Home." *American Journal of Sociology* 100(3):652-688.

Calarco, Jessica, Emily Meanwell, Elizabeth Anderson, and Amelia Knopf. 2021. "By Default: How Mothers in Different-Sex Dual-Earner Couples Account for Inequalities in Pandemic Parenting." *Socius* 7:23780231211038783.

Carlson, Daniel L., and Richard J. Petts. 2022. "US Parents' Domestic Labor during the First Year of the COVID-19 Pandemic." *Population Research and Policy Review* 41(6): 2393-2418.

Chesley, Noelle. 2011. "Stay-at-Home Fathers and Breadwinning Mothers: Gender, Couple Dynamics, and Social Change." *Gender & Society* 25(5):642-664.

---. 2017. "What Does It Mean to be a "Breadwinner" Mother?" *Journal of Family*

Issues 38(18):2594-2619.

Chesley, Noelle, and Sarah Flood. 2017. "Signs of Change? At-Home and Breadwinner Parents' Housework and Child-Care Time." *Journal of Marriage and Family* 79(2):511-534.

Collins, Caitlyn. 2019. *Making Motherhood Work: How Women Manage Careers and Caregiving*. Princeton, NJ: Princeton University Press.

Collins, Caitlyn, Liana Christin Landivar, Leah Ruppanner, and William Scarborough. 2021. "COVID-19 and the Gender Gap in Work Hours." *Gender, Work & Organization* 28:101-112.

Collins, Caitlyn, Leah Ruppanner, Liana Christin Landivar, and William Scarborough. 2020. "The Gendered Consequences of a Weak Infrastructure of Care: School Reopening Plans and Parents' Employment During the COVID-19 Pandemic." *Gender & Society* 35(2):180-193.

Coverman, Shelley. 1985. "Explaining Husbands' Participation in Domestic Labor." *Sociological Quarterly* 26(1):81-97.

Craig, Lyn, and Brendan Churchill. 2021. "Dual-Earner Parent Couples' Work and Care During COVID-19." *Gender, Work & Organization* 28:66-79.

Damaske, Sarah. 2013. "Work, Family, and Accounts of Mothers' Lives Using Discourse to Navigate Intensive Mothering Ideals." *Sociology Compass* 7(6):436-444.

Daminger, Allison. 2019. "The Cognitive Dimension of Household Labor." *American Sociological Review* 84(4):609-633.

---. 2020. "De-Gendered Processes, Gendered Outcomes: How Egalitarian Couples Make Sense of Non-Egalitarian Household Practices." *American Sociological Review* 85(5): 806-829.

Del Boca, Daniela, Noemi Oggero, Paola Profeta, and Mariacristina Rossi. 2020. "Women's and Men's work, Housework and Childcare, Before and During COVID-19." *Review of Economics of the Household* 18(4):1001-1017.

Deterding, Nicole, and Mary Waters. 2021. "Flexible Coding of In-Depth interviews: A Twenty-First-Century Approach." *Sociological Methods & Research* 50(2):708-739.

Deutsch, Francine, and Susan Saxon. 1998. "Traditional Ideologies, Nontraditional Lives." *Sex Roles 38*: 331–362. doi:10.1023/A:1018749620033.

Dunatchik, Allison, Kathleen Gerson, Jennifer Glass, Jerry Jacobs, and Haley Stritzel. 2021. "Gender, Parenting, and the Rise of Remote Work During the Pandemic: Implications for Domestic Inequality in the United States." *Gender & Society* 35(2):194-205.

England, Paula. 2010. "The Gender Revolution: Uneven and Stalled." *Gender & Society* 24(2):149-166.

Fauser, Sophia. 2019. "Time Availability and Housework: The Effect of Unemployment on Couples' Hours of Household Labor." *Social Science Research* 83:102304.

Ferree, Myra Marx. 1991. "The Gender Division of Labor in Two-Earner Marriages: Dimensions of Variability and Change." *Journal of Family Issues* 12(2): 158-180.

Fry, Richard, Carolina Aragão, Kiley Hurst and Kim Parker. 2023. "In a Growing Share of U.S. Marriages, Husbands and Wives Earn About the Same." Washington, D.C.: Pew Research Center.

Gerson, Kathleen. 2002. "Moral Dilemmas, Moral Strategies, and the Transformation of Gender: Lessons from Two Generations of Work and Family Change." *Gender & Society* 16(1):8-28.

Greenstein, Theodore N. 1996. "Husbands' Participation in Domestic Labor: Interactive Effects

of Wives' and Husbands' Gender Ideologies." *Journal of Marriage and the Family* 585-595.

---. 2000. "Economic Dependence, Gender, and the Division of Labor in the Home: A Replication and Extension." *Journal of Marriage and Family* 62(2):322-335.

Gupta, S., 2007. "Autonomy, Dependence, or Display? The Relationship Between Married Women's Earnings and Housework." *Journal of Marriage and Family* 69(2):399-417.

Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. New Haven, CT: Yale University Press.

Hochschild, Arlie (with Anne Machung). 1989. *The Second Shift: Working Families and the Revolution at Home*. New York, NY: Penguin.

Hook, Jennifer. 2017. "Women's Housework: New Tests of Time and Money." *Journal of Marriage and Family 79*(1):179-198.

Kerr, Paula S., and Ronald R. Holden. 1996. "Development of the gender role beliefs scale (GRBS)." *Journal of Social Behavior and Personality* 11(5): 3.

Landivar, Liana Christin, Leah Ruppanner, William Scarborough, and Caitlyn Collins. 2020. "Early Signs Indicate that COVID-19 is Exacerbating Gender Inequality in the Labor Force." *Socius 6*:2378023120947997.

Latshaw, Beth and Stephanie Hale. 2016. "'The Domestic Handoff': Stay-at-Home Fathers' Time-Use in Female Breadwinner Families." *Journal of Family Studies* 22(2):97-120.

Lyttelton, Thomas, Emma Zang, and Kelly Musick. 2022. "Telecommuting and Gender Inequalities in Parents, Paid and Unpaid Work Before and During the COVID-19 Pandemic." *Journal of Marriage and Family* 84(1):230-249.

Meisenbach, Rebecca. 2010. "The Female Breadwinner: Phenomenological Experience and

Gendered Identity in Work/Family Spaces." *Sex Roles* 62(1):2-19.

Merton, Robert K. 1987. "Three Fragments from a Sociologist's Notebooks: Establishing the Phenomenon, Specified Ignorance, and Strategic Research Materials." *Annual Review of Sociology* 13(1): 1-29.

Miller, Amanda, and Daniel Carlson. 2016. "Great Expectations? Working-and Middle-Class Cohabitors' Expected and Actual Divisions of Housework." *Journal of Marriage and Family* 78(2): 346-363.

Mize, Trenton D., Gayle Kaufman, and Richard J. Petts. 2021. "Visualizing Shifts in Gendered Parenting Attitudes During COVID-19." *Socius* 7:23780231211013128.

Moen, Phyllis, Joseph Pedtke, and Sarah Flood. 2020. "Disparate Disruptions: Intersectional COVID-19 Employment Effects by Age, Gender, Education, and Race/Ethnicity." *Work, Aging and Retirement 6*(4):207-228.

Pampel, Fred. 2011. "Cohort Change, Diffusion, and Support for Gender Egalitarianism in Cross-National Perspective." *Demographic Research* 25:667-694.

Raley, Sara, Suzanne M. Bianchi, and Wendy Wang. 2012. "When Do Fathers Care? Mothers' Economic Contribution and Fathers' Involvement in Child Care." *American Journal of Sociology* 117(5): 1422-59.

Rao, Aliya Hamid. 2020. *Crunch Time: How Married Couples Confront Unemployment*. Oakland, CA: University of California Press.

Ridgeway, Cecilia, and Shelley Correll. 2004. "Unpacking the Gender System: A Theoretical Perspective on Gender Beliefs and Social Relations." *Gender & Society 18*(4):510-531.

Schneider, Daniel. 2012. "Gender Deviance and Household Work: The Role of Occupation." *American Journal of Sociology 117*(4):1029-1072.

Scott, Marvin, and Stanford Lyman. 1968. "Accounts." *American Sociological Review* 46-62.

Sevilla, Almudena, and Sarah Smith. 2020. "Baby Steps: The Gender Division of Childcare During the COVID-19 pandemic." *Oxford Review of Economic Policy*, *36*(Supplement_1):S169-S186.

Shelton, Beth Anne, and Daphne John. 1996. "The Division of Household Labor." *Annual Review of Sociology* 22(1): 299-322.

South, Scott, and Glenna Spitze. 1994. "Housework in Marital and Nonmarital Households." *American Sociological Review* 327-347.

Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 273-286.

Tichenor, Veronica. 2005. "Maintaining Men's Dominance: Negotiating Identity and Power When She Earns More." *Sex Roles* 53(3):191-205.

Townsend, Nicholas. 2002. *Package Deal: Marriage, Work and Fatherhood in Men's Lives*. Philadelphia, PA: Temple University Press.

Van der Lippe, Tanja, Judith Treas, and Lukas Norbutas. 2018. "Unemployment and the Division of Housework in Europe." *Work, Employment and Society* 32(4):650-669.

Van Hooff, Jenny. 2011. "Rationalising Inequality: Heterosexual Couples' Explanations and Justifications for the Division of Housework Along Traditionally Gendered Lines." *Journal of Gender Studies* 20(01):19-30.

Zamberlan, Anna, Filippo Gioachin, and Davide Gritti. 2021. "Work Less, Help Out More? The Persistence of Gender Inequality in Housework and Childcare During UK COVID-19." *Research in Social Stratification and Mobility 73*:100583.

Chapter 3:

Does Commute Time Matter for the Motherhood Wage Penalty?

Angela Clague

Abstract: This study investigates the extent to which the *motherhood wage penalty*, in which childless women tend to outearn mothers, varies by the average commute time where women live. I argue that in communities where the average commute time to the workplace is long, there's likely a scarcity of high-wage jobs near residential areas. Mothers may be more likely to prioritize short commute times to reduce conflict between paid and domestic roles than childless women, such that the highest motherhood wage penalties will be in areas with long average commute times. I rely on data from the 2015-2019 waves of the American Community Survey, and estimate ordinary least squares and two-level random effect hierarchical linear models. Findings suggest that living in an area where workers tend to have long commutes is positively associated with wages and labor supply for childless women, but not for mothers. Increases in the average commute time where women live are associated with modest declines in maternal wages and sharp declines in maternal labor supply. Taken together, results suggest that women's career decisions after having children may be constrained by where they live.

Motherhood tends to depress women's wages (Budig & England, 2001; Budig & Hodges, 2010). Past scholarship estimates that mothers experience a 5 to 10 percent wage reduction per child, on average (Gough & Noonan, 2013). Explanations for this *motherhood wage penalty* often focus on human capital differences between mothers and childless women, employer discrimination against mothers, and workplaces that are inflexible to family responsibilities (Anderson, Binder, & Krause, 2003; Budig & England, 2001; Budig & Hodges, 2010; Cha & Weeden, 2014; Weeden, Cha, & Bucca, 2016; Acker, 1990; Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008; Yu & Kuo, 2017). Other scholars argue that women, particularly mothers, accept jobs with low wages in exchange for non-wage amenities, such as flexible hours, flexible locations, and a short commute time to the workplace (Becker, 1985; Goldin & Katz, 2011; Wiswall & Zafar, 2017; Liu & Su, 2020). Yet, little is known about whether the motherhood penalty varies by characteristics of where women live.

Using data from the American Community Survey (ACS), I focus on one key characteristic of where women live: average time spent commuting to the workplace. The average time workers spend commuting to the workplace where women live is important to consider because cities with long average commute times tend to have low-wage jobs near residential areas and high-wage jobs away from residential areas (Wang, 2003; Waldfogel, 2007; Le Barbanchon, Rachelet, & Roulet, 2020). Having a long commute may be a "dealbreaker" for many working mothers, such that living in an area with a long average commute time may constrain their job opportunities and adversely impact their careers.

My main analysis investigates the wage and labor supply effects of motherhood and the average commute time to the workplace in the local area. I also provide a supplemental analysis that examines how the motherhood wage penalty varies by women's own commute time. I

consider women's own commute time separately from the average commute time where women live because locality-level commute time is likely less endogenous than women's own commute time. However, I include both measures in the analysis for comparison. Finally, I investigate women's selectivity into areas with long average commute times and long individual commute times. It is important to consider whether selectivity is driving the results, because different-sex couples may choose to move to areas with long average commute times after a birth and then assume gender-specialized family roles.

The Motherhood Wage Penalty & Time Spent Commuting

Much of the motherhood wage penalty can be explained by women reducing their hours of paid labor after having children (Anderson, Binder, & Krause, 2003; Budig & England, 2001; Budig & Hodges, 2010; Cha & Weeden, 2014; Weeden, Cha, & Bucca, 2016). People often think that when women transition from full- to part-time status or drop out of the labor force after having children, it's a matter of personal choice. For example, Becker (1991) argues that husbands and wives choose to specialize in different family roles—domestic labor for wives and paid labor for husbands—which he refers to as *household specialization*. However, all choices are made under constraints.

Where women live may represent a critical constraint on their decisions after having children. Localities may vary by the extent to which they are "family-friendly," and have characteristics that reduce conflict between paid and domestic roles or *work-family conflict* (Bianchi & Milkie, 2010; Swisher, Sweet, & Moen, 2004, 2005; Netemeyer, Boles, & McMurrian, 1996). For example, workers, and particularly mothers, may find short commute times desirable because they tend to reduce work-family conflict. Indeed, long commute times are associated with reduced time spent and increased stress reported with the family (Roberts,

Hodgson, & Dolan, 2011; Christian, 2012; Wheatley, 2014; Gimenez-Nadal & Molina, 2019). Women who live in communities with short average commute times may experience lower wage penalties after having children than women who do not, because they are better able to balance paid and domestic roles.

There is some evidence that areas with long average commute times have a scarcity of high-wage jobs near residential areas (Wang, 2003; Waldfogel, 2007; Le Barbanchon, Rachelet, & Roulet, 2020). For mothers, having a long commute may be a dealbreaker in their job search, because they tend to have more domestic responsibilities than other workers. Moreover, mothers in communities with long average commute times may have to accept a low-wage job that's close to home, whereas mothers who live in communities with short average commute times may be able to work in a high-wage job that's close to home.

In areas with short average commute times, there also may be more availability of friends and neighbors to babysit working mothers' children than in other areas. In areas with long average commute times, friends and neighbors may be less available to supervise other people's children because everyone is spending so much time commuting to the workplace. Moreover, the wage gap between mothers and childless women may be smaller in areas where the average commute time is short.

Living in an area with a short average commute time may also increase maternal labor supply. Cities with long average commute times are associated with reduced labor force participation for men and for women, but particularly for married women and mothers (Farré, Jofre-Monseny & Torrecillas, 2023). There are many reasons why this may be the case. For example, in areas with long average commute times, married and cohabiting mothers' partners are likely to have a long commute time, reducing their time at home to help them with domestic

responsibilities, which may increase mothers' work-family conflict (Sandow & Westin, 2010). Different-sex couples living in areas with long average commute times may also choose to specialize in gender-typed roles. Increases in husbands' commute time tends to decrease wives' employment probability (Carta & De Philippis, 2018).

In areas with a long average commute time, it is also possible that employers perceive that mothers will have lower retention than childless women, because they perceive mothers have split priorities (Correll, Benard, & Paik, 2007; Stone, 2007; Heilman & Okimoto, 2008). Employers may anticipate the work-family conflict mothers will experience, and discriminate against mothers based on commute time in hiring decisions.

Time Spent Commuting & Labor Outcomes

Time spent commuting may be a critical understudied contributor to the motherhood wage penalty. Mothers may screen whether they will accept jobs based on commute time, and there is evidence of a link between commute time and wages. Studies investigating individual commute times suggest that workers with long commutes earn the highest wages (Hazans, 2004; Renkow & Hoover, 2000; van Ommeren, van den Berg, & Gorter, 2000; Van Ommeren & Rietveld, 2005; Gutiérrez-i-Puigarnau & van Ommeren, 2010; Gimenez-Nadal et al., 2020), which some scholars theorize can be explained by employers compensating for long commute times when extending job offers (Rupert, Stancanelli, & Wasmer, 2009; Gershenson, 2013). Many of these studies merely identify associations. However, in a quasi-natural experiment, Mulalic, van Ommermen, and Pilegaard (2013) demonstrate that each 1km increase in commuting distance causes a 0.15 percent increase in wages three years after a firm relocates.

These findings on the individual- and firm-level also extend to the city level. For example, Timothy and Wheaton (2001) found a positive association between wages and the

average commute time of workers in the same employment zone, even after adjusting for worker qualifications, in two U.S. cities. Moreover, living in an area with a long average commute time may limit mothers' availability of alternative high-wage jobs where they would spend little time commuting (Waldfogel, 2007; Le Barbanchon, Rachelet, & Roulet, 2020), prompting them to accept a low-wage job or drop out of the labor force.

Indeed, there is evidence that women are less able to exchange a long commute time to the workplace for high wages than men. Studies examining gender differences in individual commute times consistently find that women, particularly mothers, tend to be more likely to work in low-wage jobs with a short commute time than men (Borghorst, Mulalic, & van Ommeren, 2021; Troncoso, de Grange, & Rodriguez, 2021; Sandow & Westin, 2010; Liu & Su, 2022; Farré, Jofre-Monseny & Torrecillas, 2023). Gender-based differences in individual time spent commuting to the workplace accounts for 9 to 16 percent of the *gender-based pay gap*, in which men outearn women (Le Barbanchon, Rathelet, & Roulet, 2020). Liu and Su (2022) further found that the gender-based wage gap is highest in the suburbs—with long average commute times—and lowest in central cities—with low average commute times.

Yet, no studies to date explore how the average commute time where mothers live influence the motherhood wage penalty, and few studies explore how time spent commuting to the workplace influences the motherhood wage penalty. One study using data from Germany suggests that 23 percent of the motherhood wage penalty can be explained by women transitioning to jobs that reduce their commuting distance after having children (Skora, Rüger, & Stawarz, 2020), but more research is needed in different country contexts.

Jobs have multiple characteristics that make them more or less desirable for a variety of individuals, and arguably sometimes groups of individuals. I expect that mothers, but not

childless women, will be constrained from making the tradeoffs that would allow them to have high-wage jobs in communities with a long average commute. In communities with long average commute times, mothers may have a limited selection of high-wage jobs near their homes, constraining their job search. Many may opt to drop out of the labor force. In contrast, mothers may have an ample selection of high-wage jobs near their homes in family-friendly communities with a short average commute time. Moreover, I hypothesize:

> *Hypothesis 1:* The motherhood wage penalty will be lowest in areas with short average commute times and highest in areas with long average commute times.
>
> *Hypothesis 2*: Gaps in labor force participation between mothers and childless women will be lowest in areas with short average commute times and highest in areas with long average commute times.

In a supplemental analysis, I also consider the relationship between women's own commute time and women's wages. I investigate women's own commute time separately from the average commute time where women live because women's own commute time is likely a more endogenous measure than the average commute time where women live. However, I include both measures in the analysis for comparison. If there is employer bias against mothers (Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008), then I expect that employers will compensate mothers less than childless women for long commute times. I also expect that mothers will experience more work-family conflict than childless women, prompting mothers to place limits on how long they're willing to commute to the workplace, which may hinder their career advancement (Becker & Moen, 1999). Moreover, I hypothesize:

> *Hypothesis 3:* Women's own commute time will be associated with increases in their wages; however, this effect will be attenuated for mothers.

Current Study

Does the motherhood wage penalty vary by is the average commute time where women live? This paper is the first to address this question, drawing data from the 2015 to 2019 five-year estimate of the ACS. In addition to examining maternal wages, I examine maternal labor force participation. This affords a more comprehensive picture of whether—and how—the average commute time where women live constrains maternal labor outcomes. In a supplemental analysis, I also examine the relationship between women's own commute time and women's wages. It's important to consider whether the results from the main analysis are driven by selectivity, because different-sex couples who choose to live in areas with a long average commute time may also choose to specialize in gender-typed roles. Consistent with other studies analyzing individual outcomes by geographic place of residence, I use a two-level random effect hierarchical linear model (HLM) (Heuveline, Yang, & Timberlake, 2010; Kalmijn, 2013).

METHODS

Sample

I use data from the ACS, an annual demographic survey the U.S. Census Bureau has administered since 2005. The ACS collects demographics, employment, and geographic information from roughly 3.5 million American households annually, making it the largest U.S. Census Bureau household survey. The ACS is an ideal dataset for this study because it collects information on commute time to the workplace.

I selected the 2015-2019 five-year data file, which pools cross-sectional data from individual households over a five-year period. I chose a five-year instead of a one-year data file because five-year estimates are more geographically representative of the U.S. than one-year estimates, given increased sampling of sparsely populated areas (U.S. Census Bureau, 2023).

To delineate geographic areas, I rely on Public Use Microdata Areas (PUMAs). The five-year ACS estimates are representative of the continental U.S. at the PUMA level. PUMAs are non-overlapping collections of census tracts that are comprised of at least 100,000 people. PUMAs are analogous to counties in most cases; however, large urban counties tend to be divided into multiple PUMAs and less-populated rural counties tend to be combined into a single PUMA. To address sample representativeness, I adjust each PUMA by the weighted geometric means of the population density of the included census tracts.

My sample includes women between the ages of 25 and 55. I selected this age range to capture prime childrearing years, and years after sample members likely completed their education. Sensitivity tests including women below the age of 25 indicate that including women of younger ages does not significantly change the results. I adjust my analyses using the person-level weight for sample representativeness.

This analysis has two samples. The main sample includes only women with a non-zero hourly wage to estimate the motherhood wage penalty, which comprises of roughly 11 million women. I also include a supplemental sample of all women to estimate labor supply, which comprises of roughly 15 million women.

Measures

There are two dependent variables in this analysis. The first is the natural logarithm of women's hourly wages. The ACS collects data on annual earnings, average hours worked in a typical week, and number of weeks worked in the prior calendar year. I estimate hourly wages in the prior calendar year by dividing annual earnings by the product of average hours worked in a typical week and number of weeks worked. Next, I took the natural logarithm of the measure to address the skewness of the distribution. I top-coded hourly wages at the 99th percentile to

prevent extreme values from influencing the results. Hourly wages are in constant 2019 dollars using the Bureau of Labor Statistics Consumer Price Index (CPI). The second is labor force participation. I define participation in the labor force by whether women's hours worked in the previous year is at or above zero.

There are three key independent variables in this study—motherhood, average commute time to the workplace in PUMA of residence, and own commute time to the workplace. Motherhood is classified as childless (reference category), a mother and the youngest child in the household is under the age of six, and a mother the youngest child in the household is six or older. The commute time variable is based on the average number of minutes workers self-report traveling to the workplace. Average commute time in PUMA of residence is the average number of minutes it takes for men and women to travel to the workplace in a woman's respective PUMA. I constructed this variable by averaging the individual commute times of all workers in each PUMA, using the Federal Information Processing System (FIPS) state codes and U.S. Census Bureau PUMA codes to uniquely identify PUMAs. I rescaled this variable by dividing it by five, such that average commute time in PUMA of residence is measured in increments of five minutes. Women's own commute time is the number of minutes it takes for a woman to travel to her workplace. I rescaled this variable by dividing it by five, such that individual commute time is measured in increments of five minutes. I top-coded average PUMA commute time and own commute time at the 99^{th} percentile to ensure that extreme values do not influence the results.

In the supplementary analysis, average commute time to the workplace in PUMA of residence and own commute time to the workplace serve as dependent variables. I took the natural logarithm of these variables to address the skewness of the distribution. I also top-coded

these variables at the 99th percentile to address outliers.

I adjust for demographics, such as age, age^2, marital status, race/ethnicity, and years of education, consistent with cross-sectional research on the motherhood wage penalty (Weeden, Cha, & Bucca, 2016). I also adjust for whether women live in a metropolitan city, because there is evidence that women living in metropolitan cities earn more than other women (Smith & Glauber, 2013). In addition, I adjust for current region of residence and the calendar year the data was collected. The specification for marital status, race/ethnicity, and region are in Table 1.

Models

I estimate ordinary least squares (OLS) and two-level random effect HLM models. I use OLS for models that only analyze individual level data, and two-level random effect HLMs for models that analyze individual women nested in PUMAs. Two-level random effect HLMs are appropriate when using both individual- and PUMA-level data, because variables for women living in the same PUMA may be correlated (Raudenbush & Bryk, 2002).

First, I consider the relationship between women's individual commute time to the workplace and women's wages, using ordinary least squares (OLS). I interact motherhood with individual commute time to examine whether individual commute time moderates the motherhood wage penalty. Next, I consider whether the average commute time to the workplace in PUMA of residence influences women's wages, using a two-level random effect HLM. The units of analysis are women at Level 1 and women's PUMA of residence at the time of the survey at Level 2. As in the OLS model, I interact motherhood with average commute time in PUMA of residence to examine whether average PUMA commute time moderates the motherhood wage penalty.

Finally, I present the supplementary analysis, where women's labor force participation,

women's own commute time, and average commute time in the PUMA of residence, are the dependent variables. I use OLS when the dependent variable is women's individual commute time, and two-level random effect HLMs when the dependent variables are labor force participation and average commute time in the PUMA of residence. When labor force participation is the dependent variable, the independent variables in Level 1 are the same as in the main analysis. When women's individual commute time or average commute time in the PUMA of residence are the dependent variables, the main independent variable is motherhood, and the models also adjusts for the control variables.

RESULTS

Descriptive Statistics

Table 1 reports the descriptive statistics for the full sample, including both earners and non-earners, and the sample of only earners. In the earner sample, the average natural logarithm of hourly wages is 2.7. In the full sample, 71 percent of women are in the labor force. Across samples of women, roughly 40 percent have no children in the household, and 20 percent have a child under the age of six. In the full sample, 47 percent have a child aged six or older. In the earner sample, 39 percent have a child aged six or older. The average own commute time is 7 minutes in the sample of earners. The average PUMA commute time is 12 minutes in both samples of women.

--TABLE 1 ABOUT HERE—

Some of the control variables are consistent across the full and earner samples of women. Roughly half of the women are married, 20 percent are previously married, and 30 percent are never married. The average age is roughly 39 years. Most women live in the south (roughly 40 percent). However, there are distinctions between the two samples. The earner sample has a

higher proportion of non-Hispanic white (56 percent vs. 48 percent) and non-Hispanic black (16 percent vs. 14 percent) women than the full sample. The earner sample also has a higher proportion of college educated women (30 percent) than the full sample (23 percent). Fewer women in the earner sample (13 percent) live in a metropolitan city than in the full sample (15 percent).

Multivariate Results

Does the motherhood wage penalty vary by the average commute time where women live? Table 2 reports the relationship between motherhood, average commute time in PUMA of residence, women's hourly wages, and women's labor supply.

—TABLE 2 ABOUT HERE—

I begin with Model 1 and Model 2 of Table 2, which reports the relationship between motherhood, average commute time in PUMA of residence, and women's wages, using the earner sample of women. I do not find a significant motherhood wage penalty overall, but I do find a positive association between the PUMA average number of minutes workers spend commuting to the workplace and women's hourly wages. In Model 4, I interact motherhood with average commute time in PUMA of residence. Figure 1 depicts the interaction.

--FIGURE 1 ABOUT HERE—

Figure 1 suggests that living in PUMAs with long average commute times are associated with larger wage gaps between mothers and childless women, which supports Hypothesis 1, stating the motherhood wage penalty will be lowest in areas with short average commute times, and highest in areas with long average commute times. Moreover, there is a positive association between PUMA average commute time and women's wages for childless women, but not for mothers. For mothers of children aged six and older, increases in the PUMA average commute

time is associated with little change t in women's wages. For mothers of children under the age of six, increases in PUMA average commute time is associated with declines in women's wages.

Does the women's labor supply vary by the average commute time where women live? Models 3 and 4 of Table 3 report the results for selectivity in the labor force, using the full sample of women. In Model 3, I find evidence that being a mother is associated with a lower probability of being in the labor force when compared to childless women. I also find a negative association between average PUMA commute time and the probability of mothers being in the labor force.

Model 4 reports the interaction between motherhood and PUMA average commute time. Figure 3 depicts the interaction.

--FIGURE 2 ABOUT HERE—

I find support for Hypothesis 2, which states that gaps in labor force participation between mothers and childless women will be lowest in areas with short average commute times, and highest in areas with long average commute times. PUMA average commute time is associated with increases in the probability childless women participate in the labor force, but decreases in the probability that mothers participate in the labor force.

Supplementary Results

The main analysis (Table 2) considers how average PUMA and own commute time is associated with women's wages and labor supply. The supplemental analysis considers women's own commute times (Table 3), and selection into own commute times and living in PUMAs with a long average commute time (Table 4).

I begin with the models examining the relationship between motherhood, own commute time, and women's wages (Table 3). Does the motherhood wage penalty vary by women's own

commute time? In Model 1, I find that children are associated with lower wages for mothers whose youngest child is under the age of six, but not for mothers of older children. I also find a positive association between the number of minutes women spend commuting to the workplace and women's hourly wages.

In Model 2, I interact motherhood with women's individual commute time. Figure 2 depicts the interaction.

--FIGURE 3 ABOUT HERE—

I find support for Hypothesis 3, which states that women's own commute time will be associated with increases in their wages, but that this effect will be attenuated for mothers. The positive association between women's own commute time and women's wages is similar for childless women and mothers of children ages six and older. I also find a positive association between women's own commute time and women's wages for mothers of children under the age of six; however, these women's wages tend to be lower than other women's, on average.

Does being a mother influence women's own commute time to the workplace? Model 1 of Table 4 reports the results when women's own commute time is the dependent variable. Relative to childless women, being a mother is associated with a shorter commute time.

Does being a mother influence women's selection into areas with long average commute times? Model 2 of Table 4 reports the results when average commute time in PUMA of residence is the dependent variable, using the earner sample. Model 3 of Table 4 reports the results with the same dependent variable, but using the full sample. In both cases, I find no association between motherhood and living in a PUMA with a long average commute time.

CONCLUSION

Does the motherhood wage penalty vary by the average commute time where women live?

Drawing on data from the 2015 to 2019 ACS five-year estimate, this study is the first to address this critical question. My findings suggest that mothers may be constrained in finding desirable jobs in areas with long commute times. I find that long average commute times are associated with larger gaps in wages and labor supply between mothers and childless women.

For mothers of older children, the average commute time of workers living in the same community seems to have little impact on their wages. In contrast, living in a area with a long average commute times is linked to wage reductions for mothers of very young children. There are a number of reasons why living in an area with a long average commute time may be more impactful for mothers of young children than for mothers of older children. Having young children tends to be associated with greater work-family conflict because young children tend to demand more attention than older children (Bianchi & Milkie, 2010; Becker & Moen, 1999). This conflict may be more pronounced for mothers living in an area with a long versus a short average commute time. For example, mothers may depend more on paternal caregiving for very young children than for children of older ages, and fathers may have a long commute time and be less available to provide domestic support (Sandow & Westin, 2010).

Mothers of young children may also be younger on average than mothers of older children, and less established in their careers. These mothers may have fewer skills than mothers of older children, and work in entry level jobs (Becker & Moen, 1999). When these mothers live in an area with a long average commute time—where high-wage jobs with a short commute time may already be sparse (Waldfogel, 2007; Le Barbanchon, Rachelet, & Roulet, 2020)—their pool of high-wage jobs with short commute times may be smaller than for mothers of older children with more career experience.

The is a negative association between motherhood and labor force participation tends to decline further as the average commute time of workers living in the same area increases, irrespective of the age of the youngest child in the household. When mothers live in an area where the time spent commuting is long on average—thus, possibly increasing work-family conflict (Roberts, Hodgson, & Dolan, 2011; Christian, 2012; Wheatey, 2014; Gimenez-Nadal & Molina, 2019)—perhaps many choose to drop out of the workforce. It is also possible that mothers are more likely to be pushed out of the workforce in areas with a high versus a low average commute time (Stone, 2007). For example, employers may perceive that mothers are particularly incapable of being *ideal workers,* who are fully committed to the demands of the organization with few distractions, in areas where workers tend to spend considerable time commuting to the workplace (Correll, Benard, & Paik, 2007; Heilman & Okimoto, 2008; Acker, 1990).

Consistent with previous research (Hazans, 2004; Renkow & Hoover, 2000; van Ommeren et al., 2000; Van Ommeren & Rietveld, 2005; Gutiérrez-i-Puigarnau & van Ommeren, 2010; Gimenez-Nadal et al., 2020), I found that women's own commute time is positively associated with women's wages. The slope describing the relationship between women's own commute time and women's wages was similar for childless women and mothers of older children. However, the slope was more gradual for mothers of young children, suggesting that these mothers work in a lower wage job to begin with.

Could the results be explained by mothers choosing to locate in suburban areas because of gender-based specialization in the family? The results from the supplemental analysis suggest that being a mother is associated with a short commute time, but that motherhood is not associated with living in long average commute time area. This may suggest that the results

observed are not solely influenced by mothers' selectivity into suburban rather than urban residential locations.

Although this study clarifies the relationship between commuting and the motherhood wage penalty, it is not without limitations. OLS and two-level random effect HLMs do not account for selection into motherhood or into areas with long average commute times. For example, women may choose to have children when their wages are low (Lundberg & Rose, 2000). Women's residential location preferences may also be correlated with their preferences for commuting, wages, and labor supply (Liu & Su, 2022). Women who want to specialize in domestic labor, and depend on their husbands' earnings, may choose where to live based on their husbands' careers (Becker, 1991; Geist & McManus, 2012). Moreover, women who live in the suburbs, where high-wage jobs tend to be farther away from home than in cities, may already be planning to transition to a low-wage job, reduce their paid hours, or drop out of the labor force. In contrast, women who want to share domestic and paid labor equally with their husbands may choose to live in cities where high-wage jobs are centralized.[6]

To address the possibility of selectivity into areas with short average commute times, future studies should consider whether—and how—communities vary by residential mobility. Future research should also explore whether these results hold in using MSAs rather than PUMAs as the unit of the analysis, given MSAs tend to comprise of a larger geographic area than do PUMAs. People tend to be geographically constrained. It's less likely people would move across MSAs to resolve work-family conflicts; however, it may be more likely that people would move to resolve work-family conflict or exit the labor force in PUMAs.

In addition, there may be other characteristics of family-friendly communities that

[6] In a supplemental analysis of only not married women, I found the same trend that I observed in the sample including married women.

influence the motherhood wage penalty that have yet to be explored, including the price of childcare, property and violent crime, and average socioeconomic status of the community. All of these community characteristics may reduce the extent to which mothers must monitor their children, which may interfere with their paid labor. Finally, future research should explore whether average commute time where fathers live influences the *fatherhood wage premium*, which describes how men's earnings tend to increase after having children (Weeden, Cha, & Bucca, 2016; Glauber, 2018).

Despite these limitations, this study suggests a link between the motherhood penalty and characteristics of where women live. Mothers, particularly mothers of young children, tend to earn higher wages and have a higher likelihood of participating in the labor force in areas with short average commute times than in areas with long average commute times. Taken together, the results suggest that characteristics of where women live may support equality in labor outcomes between mothers and childless women.

Table 1. Descriptive Statistics

	Full Sample		Earner Sample	
	Mean/Proportion	SE	Mean/Proportion	SE
Natural Logarithm of Hourly Wages	-	-	2.74	(0.03)
Labor Force Participation	0.71	(0.04	1.00	-
Mother				
Childless	0.38	(0.04)	0.43	(0.02)
Child <6	0.15	(0.03)	0.18	(0.02)
Mother, Child 6+	0.47	(0.05)	0.39	(0.02)
Individual Commute Time (by every 5 minutes)	-	-	1.46	(0.06)
he Natural Logarithm of Individual Commute Time	-	-	0.03	(0.04)
Avg. PUMA Commute Time (by every 5 minutes)	2.34	(0.04)	2.37	(0.03)
The Natural Logarithm of Avg. PUMA Commute Time	0.87	(0.01)	0.87	(0.01)
Marital Status				
Married	0.49	(0.05)	0.50	(0.02)
Previously Married	0.18	(0.04)	0.19	(0.02)
Never Married	0.32	(0.04)	0.30	(0.02)
Age	39.15	(0.87)	38.63	(0.40)
Race/Ethnicity				
NH White	0.48	(0.04)	0.56	(0.02)
NH Black	0.14	(0.03)	0.16	(0.02)
Hispanic	0.20	(0.04)	0.18	(0.02)
NH Asian	0.09	(0.03)	0.06	(0.01)
NH Other	0.09	(0.05)	0.05	(0.05)
Education				
<HS	0.09	(0.02)	0.05	(0.01)
HS	0.37	(0.05)	0.33	(0.02)
Some College	0.31	(0.05)	0.32	(0.02)
College+	0.23	(0.03)	0.30	(0.02)
Urban	0.15	(0.02)	0.13	(0.01)
Region				
South	0.35	(0.04)	0.42	(0.03)
West	0.20	(0.03)	0.19	(0.02)
Midwest	0.21	(0.03)	0.20	(0.02)
Northeast	0.24	(0.05)	0.18	(0.02)
Year				
2015	0.22	(0.04)	0.16	(0.01)
2016	0.21	(0.03)	0.22	(0.02)
2017	0.21	(0.04)	0.23	(0.02)
2018	0.18	(0.03)	0.19	(0.01)
2019	0.18	(0.03)	0.21	(0.02)
N	15,947,624		11,426,928	

NOTES. Individual variables weighted using the individual person weight. PUMA-level variables weighted using the density weight. Hourly wages in 2019 constant dollars.

Table 2. Multilevel Regression of the Natural Logarithm of Hourly Wages and Labor Force Participation on Motherhood, Individual Commute Time, and Avg. PUMA Commute Time

	Natural Logarithm of Hourly Wages				Labor Force Participation			
	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Mother (ref=childless)								
Mother, Child <6	-0.14	(0.09)	0.72*	(0.29)	-0.15*	(0.07)	0.23	(0.26)
Mother, Child 6+	-0.00	(0.08)	0.64**	(0.22)	-0.13*	(0.06)	0.41*	(0.20)
Avg. PUMA Commute Time	0.12**	(0.04)	0.29***	(0.05)	-0.08*	(0.04)	0.04	(0.06)
Mother X Avg. PUMA Commute Time								
Mother, Child <6			-0.37***	(0.10)			-0.16	(0.06)
Mother, Child 6+			-0.27***	(0.08)			-0.23**	(0.06)
Marital Status (ref = Married)								
Previously Married	0.01	(0.09)	0.00	(0.08)	-0.06	(0.07)	-0.06	(0.06)
Never Married	-0.12	(0.09)	-0.14	(0.08)	-0.16***	(0.06)	-0.17**	(0.06)
Age	0.07*	(0.03)	0.07**	(0.03)	-0.04	(0.03)	-0.04	(0.03)
Age^2	-0.00*	(0.00)	-0.00**	(0.00)	0.00	(0.00)	0.00	(0.00)
Race/Ethnicity (ref=NH White)								
NH Black	-0.01	(0.09)	-0.00	(0.09)	0.10	(0.08)	0.10	(0.07)
Hispanic	-0.30***	(0.07)	-0.28***	(0.07)	0.12	(0.06)	0.13*	(0.06)
NH Asian	-0.18*	(0.09)	-0.17*	(0.08)	-0.03	(0.11)	-0.02	(0.10)
NH Other	-0.13	(0.12)	-0.08	(0.11)	0.12	(0.10)	0.13	(0.09)
Education (ref=HS)								
<HS	-0.08	(0.09)	-0.08	(0.09)	-0.25**	(0.09)	-0.24**	(0.09)
Some College	0.19*	(0.07)	0.20**	(0.07)	0.05	(0.06)	0.04	(0.06)
College+	0.57***	(0.08)	0.58***	(0.08)	0.20***	(0.05)	0.20***	(0.05)
Urban	0.16***	(0.05)	0.16***	(0.04)	-0.07	(0.05)	-0.07	(0.05)
Region (ref=South)								
West	0.13	(0.08)	0.12	(0.07)	-0.05	(0.05)	0.05	(0.05)
Midwest	0.01	(0.09)	0.01	(0.09)	0.01	(0.06)	0.02	(0.06)
Northeast	0.20**	(0.08)	0.20**	(0.07)	0.15*	(0.06)	0.14*	(0.05)
Year (ref=2015)								
2016	-0.12	(0.09)	-0.11	(0.09)	-0.04	(0.07)	-0.03	(0.07)
2017	-0.14	(0.10)	-0.16	(0.10)	-0.02	(0.07)	-0.02	(0.06)
2018	-0.20*	(0.10)	-0.21*	(0.10)	-0.05	(0.08)	-0.05	(0.08)
2019	-0.08	(0.08)	-0.06	(0.08)	-0.05	(0.07)	-0.04	(0.06)
Intercept	0.88	(0.58)	0.43	(0.56)	1.82**	(0.54)	1.44**	(0.50)
N	11,426,928		11,426,928		15,947,624		15,947,624	
Random-Effect Parameters								
PUMA	2.52*	(0.18)	2.35*	(0.25)	0.04*	(0.02)	0.04*	(0.02)
Residual	0.10*	(0.01)	0.10*	(0.01)	0.09*	(0.01)	0.09*	(0.01)

NOTES. Individual variables weighted using the individual person weight. PUMA-level variables weighted using the density weight. Hourly wages in 2019 constant dollars.

Table 3. Ordinary Least Squares Regression of the Natural Logarithm of Hourly Wages on Motherhood

	Model 1		Model 2	
	b	SE	b	SE
Mother (ref=childless)				
Mother, Child <6	-0.13***	(0.00)	-0.13***	(0.00)
Mother, Child 6+	0.01***	(0.00)	0.04***	(0.00)
Individual Commute Time	0.12***	(0.00)	0.12***	(0.00)
Mother X Individual Commute Time				
Mother, Child <6			-0.00***	(0.00)
Mother, Child 6+			-0.02***	(0.00)
Marital Status (ref = Married)				
Previously Married	0.01***	(0.00)	0.01***	(0.00)
Never Married	-0.12***	(0.00)	-0.12***	(0.00)
Age	0.07***	(0.00)	0.07***	(0.00)
Age^2	-0.00***	(0.00)	-0.00***	(0.00)
Race/Ethnicity (ref=NH White)				
NH Black	-0.03***	(0.00)	-0.03***	(0.00)
Hispanic	-0.29***	(0.00)	-0.30***	(0.00)
NH Asian	-0.15***	(0.00)	-0.15***	(0.00)
NH Other	-0.10***	(0.00)	-0.10***	(0.00)
Education (ref=HS)				
<HS	-0.09***	(0.00)	-0.08***	(0.00)
Some College	0.18***	(0.00)	0.18***	(0.00)
College+	0.55***	(0.00)	0.54***	(0.00)
Urban	0.14***	(0.00)	0.14***	(0.00)
Region (ref=South)				
West	0.13***	(0.00)	0.13***	(0.00)
Midwest	-0.02***	(0.00)	-0.02***	(0.00)
Northeast	0.22***	(0.00)	0.22***	(0.00)
Year (ref=2015)				
2016	-0.11***	(0.00)	-0.11***	(0.00)
2017	-0.14***	(0.00)	-0.14***	(0.00)
2018	-0.17***	(0.00)	-0.16***	(0.00)
2019	0.02***	(0.00)	0.02***	(0.00)
Intercept	1.06***	(0.00)	1.04***	(0.00)
N	15,947,624		15,947,624	

NOTES. Individual variables weighted using the individual person weight. Hourly wages in 2019 constant dollars.

Table 4. Multilevel Regression of Individual Commute Time and Avg. PUMA Commute Time on Motherhood

	Model 1: The Natural Log of Individual Commute Time (Earner Sample)		Model 2: The Natural Logarithm of Avg. Puma Commute Time (Earner Sample)		Model 3: The Natural Logarithm of Avg. PUMA Commute Time (Full Sample)	
	b	SE	b	SE	b	SE
Mother (ref=childless)						
Mother, Child <6	-0.10***	(0.00)	-0.01	(0.03)	-0.00	(0.04)
Mother, Child 6+	-0.12***	(0.00)	-0.02	(0.02)	-0.01	(0.03)
Marital Status (ref = Married)						
Previously Married	-0.07***	(0.00)	-0.07***	(0.02)	-0.03	(0.02)
Never Married	0.12***	(0.00)	0.00	(0.02)	0.04	(0.03)
Age	0.02***	(0.00)	-0.00	(0.01)	-0.02	(0.01)
Age^2	-0.00***	(0.00)	0.00	(0.00)	0.00	(0.00)
Race/Ethnicity (ref=NH White)						
NH Black	0.29***	(0.00)	0.07*	(0.04)	0.03	(0.03)
Hispanic	0.08***	(0.00)	0.05	(0.04)	0.00	(0.04)
NH Asian	-0.09***	(0.00)	0.10**	(0.04)	0.11**	(0.03)
NH Other	-0.00***	(0.00)	-0.01	(0.05	-0.06	(0.04)
Education (ref=HS)						
<HS	0.03***	(0.00)	-0.05	(0.04)	-0.02	(0.05)
Some College	0.12***	(0.00)	-0.05	(0.03)	-0.00	(0.03)
College+	0.11***	(0.00)	-0.05*	(0.02)	0.03	(0.03)
Urban	0.31***	(0.00)	0.03	(0.02)	0.04	(0.03)
Region (ref=South)						
West	-0.06***	(0.00)	0.01	(0.03)	-0.06	(0.03)
Midwest	0.20***	(0.00)	-0.01	(0.03)	-0.07**	(0.03)
Northeast	0.11***	(0.00)	0.19***	(0.03)	0.02	(0.04)
Year (ref=2015)						
2016	0.09***	(0.00)	-0.02	(0.03)	0.01	(0.04)
2017	0.23***	(0.00)	0.00	(0.03)	-0.02	(0.04)
2018	-0.12***	(0.00)	-0.03	(0.02)	0.00	(0.04)
2019	-0.04***	(0.00)	0.06	(0.03)	0.04	(0.03)
Intercept	0.47***	(0.01)	0.93***	(0.21)	1.20***	(0.31)
N	11,426,928		11,426,928		15,947,624	
Random Effects Parameters						
PUMA			2.04*	(0.11)	2.06*	(0.12)
Residual			0.00	(0.00)	0.00	(0.00)

NOTES. Individual variables weighted using the individual person weight. PUMA-level variables weighted using the density weight. Hourly wages in 2019 constant dollars.

Figure 1.

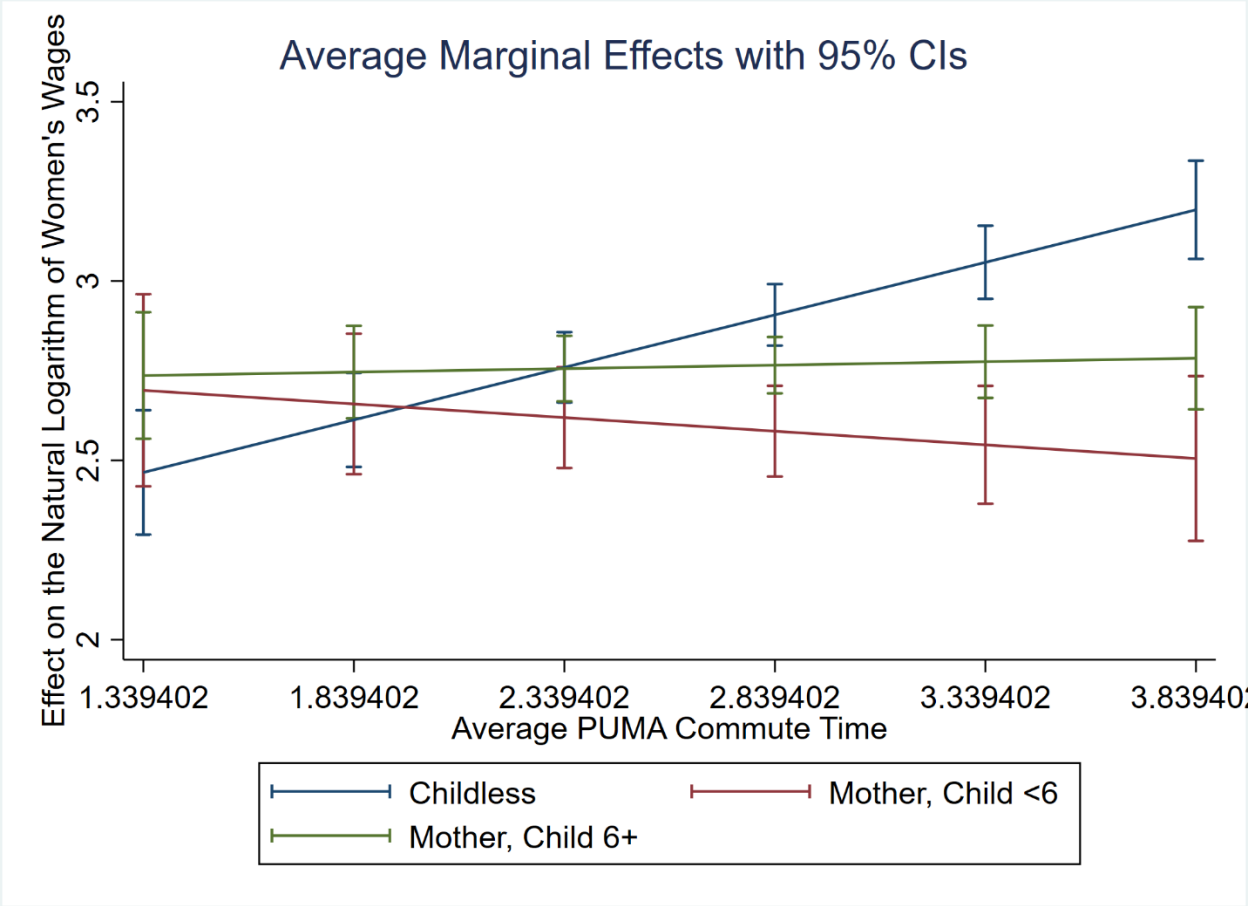

Average Marginal Effects with 95% CIs
Effect on the Natural Logarithm of Women's Wages
2
2.5
3
3.5
1.339402
1.839402
2.339402
2.839402
3.339402
Average PUMA Commute Time
Childless
Mother, Child <6
Mother, Child 6+

Figure 2.

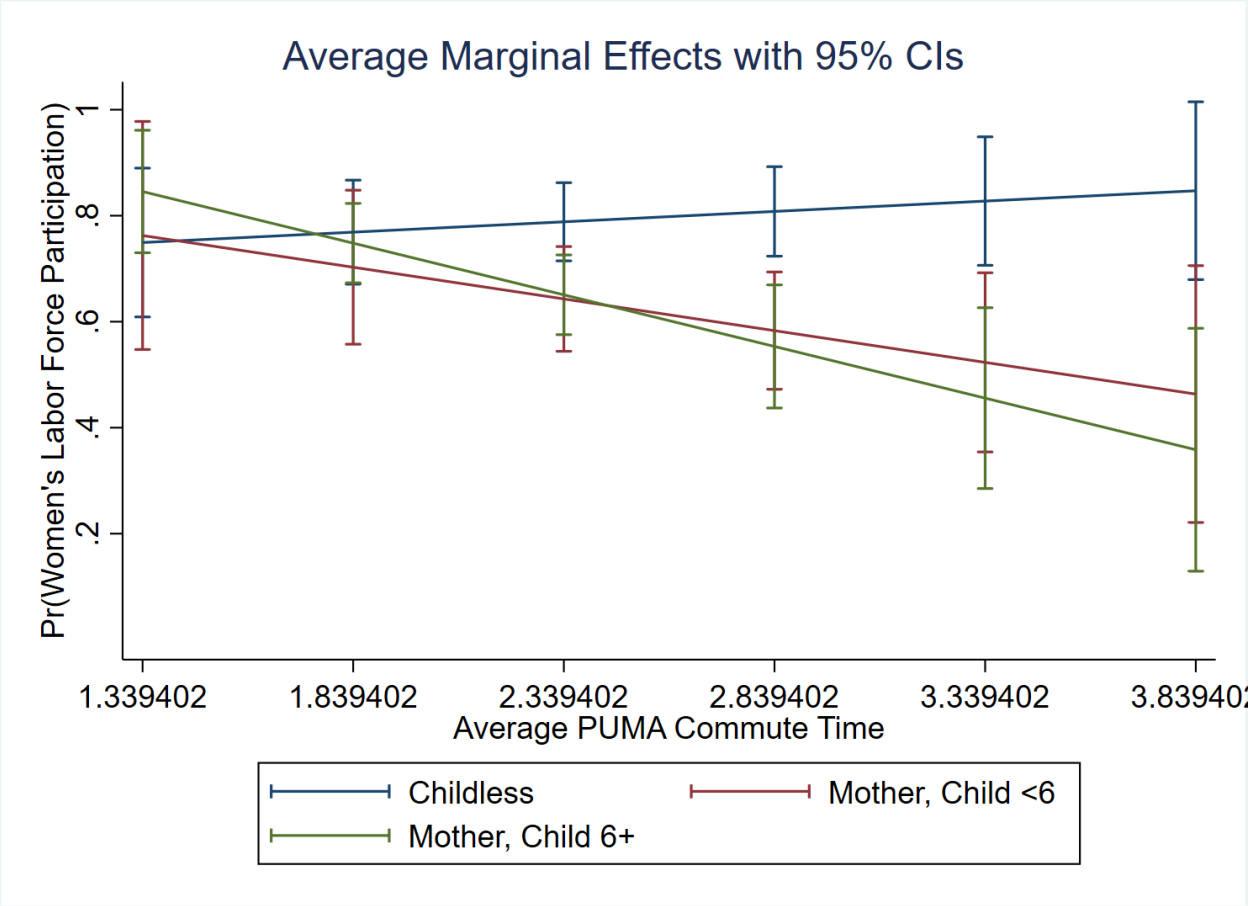
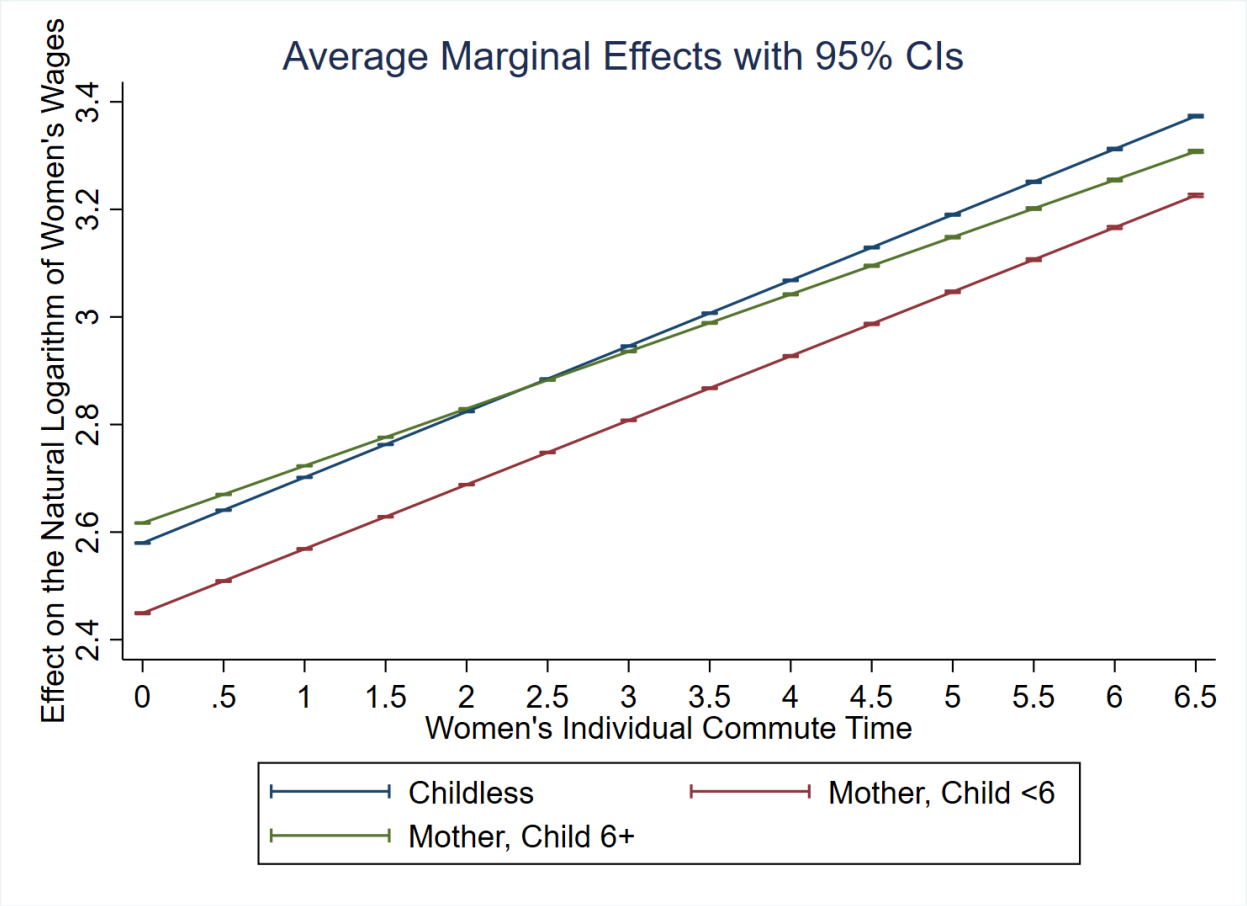

Average Marginal Effects with 95% CIs
Pr(Women's Labor Force Participation)
.2
.4
.6
.8
1
1.339402
1.839402
2.339402
2.839402
3.339402
3.83940
Average PUMA Commute Time
Childless
Mother, Child <6
Mother, Child 6+

Figure 3.


Average Marginal Effects with 95% CIs
Effect on the Natural Logarithm of Women's Wages
2.4
2.6
2.8
3
3.2
3.4
0
.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
Women's Individual Commute Time
Childless
Mother, Child <6
Mother, Child 6+

REFERENCES

Acker, J. (1990). Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations. *Gender & Society 4*(2): 139-158.

Anderson, D. J., Binder, M., & Krause, K. (2003). The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort, and Work-Schedule Flexibility. *ILR Review 56*(2): 273-294.

Becker, P. E., & Moen, P. (1999). Scaling Back: Dual-Earner Couples' Work-Family Strategies. *Journal of Marriage and the Family* 995-1007.

Becker, G. S. (1991). *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

---. (1985). Human Capital, Effort, and the Sexual Division of Labor. *Journal of Labor Economics 3*(1, Part 2): S33-S58.

Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who Did, Does or Will Do it, and How Much Does it Matter? *Social Forces*: *91*(1): 55-63.

Bianchi, S. M., & Milkie, M. A. (2010). Work and Family Research in the First Decade of the 21st Century. *Journal of Marriage and Family 72*(3): 705-725.

Blair-Loy, M. (2003). *Competing Devotions: Career and Family Among Women Executives*. Cambridge, MA: Harvard University Press.

Borghorst, M., Mulalic, I., & Van Ommeren, J. (2021). *Commuting, Children and the Gender Wage Gap* (No. TI 2021-089/VIII). Tinbergen Institute Discussion Paper.

Budig, M. J., & England, P. (2001). The Wage Penalty for Motherhood. *American Sociological Review* 204-225.

Budig, M. J., & Hodges, M. J. (2010). Differences in Disadvantage: Variation in the Motherhood Penalty Across White Women's Earnings Distribution. *American Sociological*

Review 75(5): 705-728.

Carta, F., & De Philippis, M. (2018). You've Come a Long Way, Baby. Husbands' Commuting Time and Family Labour Supply. *Regional Science and Urban Economics 69*: 25-37.

Cha, Y., & Weeden, K. A. (2014). Overwork and the Slow Convergence in the Gender Gap in Wages. *American Sociological Review 79*(3): 457-484.

Christian, T. J. (2012). Trade-Offs Between Commuting Time and Health-Related Activities. *Journal of Urban Health 89*: 746-757.

Correll, S. J., Benard, S., & Paik, I. (2007). Getting a Job: Is There a Motherhood Penalty? *American Journal of Sociology 112*(5): 1297-1338.

Damaske, S. (2013). Work, Family, and Accounts of Mothers' Lives Using Discourse to Navigate Intensive Mothering Ideals. *Sociology Compass 7*(6): 436-444.

Farré, L., Jofre-Monseny, J., & Torrecillas, J. (2023). Commuting Time and the Gender Gap in Labor Market Participation. *Journal of Economic Geography 23*(4): 847-870.

Geist, C., & McManus, P. A. (2012). Different Reasons, Different Results: Implications of Migration by Gender and Family Status. *Demography 49*(1): 197-217.

Gershenson, S. (2013). The Causal Effect of Commute Time on Labor Supply: Evidence From a Natural Experiment Involving Substitute Teachers. *Transportation Research Part A: Policy and Practice 54*: 127-140.

Glauber, R. (2018). Trends in the Motherhood Wage Penalty and Fatherhood Wage Premium for Low, Middle, and High Earners. *Demography 55*(5): 1663-1680.

Goldin, C., & Katz, L. F. (2011). The Cost of Workplace Flexibility for High-Powered Professionals. *The Annals of the American Academy of Political and Social Science 638*(1): 45-67.

Gough, M., & Noonan, M. (2013). A Review of the Motherhood Wage Penalty in the United States. *Sociology Compass 7*(4): 328-342.

Giménez-Nadal, J. I., Molina, J. A., & Velilla, J. (2020). Commuting and Self-Employment in Western Europe. *Journal of Transport Geography 88*: 102856.

--. (2019). Daily Feelings of US Workers and Commuting Time. *Journal of Transport & Health 12*: 21-33.

Gutiérrez-i-Puigarnau, E., & van Ommeren, J. N. (2015). Commuting and Labour Supply Revisited. *Urban Studies 52*(14): 2551-2563.

Hays, S. (1996). *The Cultural Contradictions of Motherhood*. New Haven, CT: Yale University Press.

Hazans, M. (2004). Does Commuting Reduce Wage Disparities? *Growth and Change 35*(3): 360-390.

Heilman, M. E., & Okimoto, T. G. (2008). Motherhood: a Potential Source of Bias in Employment Decisions. *Journal of Applied Psychology 93*(1): 189.

Heuveline, P., Yang, H., & Timberlake, J. M. (2010). It Takes a Village (Perhaps a Nation): Families, States, and Educational Achievement. *Journal of Marriage and Family 72*(5): 1362-1376.

Kalmijn, M. (2013). The Educational Gradient in Marriage: A Comparison of 25 European Countries. *Demography 50*(4): 1499-1520.

Le Barbanchon, T., Rathelot, R., & Roulet, A. (2021). Gender Differences in Job Search: Trading off Commute Against Wage. *The Quarterly Journal of Economics 136*(1): 381-426.

Liu, S., & Su, Y. (2022). The Geography of Jobs and the Gender Wage Gap. *Review of*

Economics and Statistics 1-27.

Lundberg, S., & Rose, E. (2000). Parenthood and the Earnings of Married Men and Women. *Labour Economics 7*(6): 689-710.

Mulalic, I., Van Ommeren, J. N., & Pilegaard, N. (2014). Wages and Commuting: Quasi-Natural Experiments' Evidence from Firms that Relocate. *The Economic Journal 124*(579): 1086-1105.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and Validation of Work–Family Conflict and Family–Work Conflict Scales. *Journal of Applied Psychology 81*(4): 400.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical Linear Models: Applications and Data Analysis Methods* (Vol. 1). New York, NY: Sage.

Renkow, M., & Hoover, D. (2000). Commuting, Migration, and Rural-Urban Population Dynamics. *Journal of Regional Science 40*(2): 261-287.

Roberts, J., Hodgson, R., & Dolan, P. (2011). "It's Driving Her Mad": Gender Differences in the Effects of Commuting on Psychological Health. *Journal of Health Economics 30*(5): 1064-1076.

Ruppert, P., Stancanelli, E., & Wasmer, E. (2009). Commuting, Wages and Bargaining Power. *Annals of Economics and Statistics/Annales d'Économie et de Statistique* 201-220.

Sandow, E., & Westin, K. (2010). The Persevering Commuter–Duration of Long-Distance Commuting. *Transportation Research Part A: Policy and Practice 44*(6): 433-445.

Skora, T., Rüger, H., & Stawarz, N. (2020). Commuting and the Motherhood Wage Gap: Evidence from Germany. *Sustainability 12*(14): 5692.

Smith, K. E., & Glauber, R. (2013). Exploring the Spatial Wage Penalty for Women: Does it Matter Where You Live? *Social Science Research 42*(5): 1390-1401.

Stone, P. (2007). *Opting Out?: Why Women Really Quit Careers and Head Home*. Berkeley, CA: University of California Press.

Sweet, S., Swisher, R., & Moen, P. (2005). Selecting and Assessing the Family-Friendly Community: Adaptive Strategies of Middle-Class, Dual-Earner Couples. *Family Relations* 54(5): 596-606.

Swisher, R., Sweet, S., & Moen, P. (2004). The Family-Friendly Community and its Life Course Fit for Dual-Earner Couples. *Journal of Marriage and Family* 66(2): 281-292.

Troncoso, R., de Grange, L., & Rodríguez, D. (2021). The Impact of Commute Time on the Gender Wage Gap: An Empirical Analysis. *Case Studies on Transport Policy 9*(3): 1106-1111.

Timothy, D., & Wheaton, W. C. (2001). Intra-Urban Wage Variation, Employment Location, and Commuting Times. *Journal of Urban Economics 50*(2): 338-366.

U.S. Census Bureau. (2023). American Community Survey (ACS) 5-Year Data. Retrieved from https://www.census.gov/data/developers/data-sets/acs-5year.html

Van Ommeren, J., & Rietveld, P. (2005). The Commuting Time Paradox. *Journal of Urban Economics 58*(3): 437-454.

Van Ommeren, J., Van Den Berg, G. J., & Gorter, C. (2000). Estimating the Marginal Willingness to Pay for Commuting. *Journal of Regional Science 40*(3): 541-563.

Waldfogel, J. (2007). Work-Family Policies. *Reshaping the American Workforce in a Changing Economy* 273-92.

Wang, F. (2003). Job Proximity and Accessibility for Workers of Various Wage Groups. *Urban*

Geography 24(3): 253-271.

Weeden, K. A., Cha, Y., & Bucca, M. (2016). Long Work Hours, Part-Time Work, and Trends in the Gender Gap in Pay, the Motherhood Wage Penalty, and the Fatherhood Wage Premium. *RSF: The Russell Sage Foundation Journal of the Social Sciences 2*(4): 71-102.

Wheatley, D. (2014). Travel-to-Work and Subjective Well-being: A Study of UK Dual Career Households. *Journal of Transport Geography 39*: 187-196.

Wiswall, M., & Zafar, B. (2018). Preference for the Workplace, Investment in Human Capital, and Gender. *The Quarterly Journal of Economics 133*(1): 457-507.

Yu, W. H., & Kuo, J. C. L. (2017). The Motherhood Wage Penalty by Work Conditions: How do Occupational Characteristics Hinder or Empower Mothers? *American Sociological Review 82*(4): 744-769.

CONCLUSION

In this dissertation, I addressed three critical understudied topics about working motherhood, analyzing a variety of data sources and historical time periods. In my first chapter, I asked whether the wage and labor supply effects of family roles and responsibilities have changed over time for men and for women. I found that the wage depressing effects of motherhood, partnership status, and housework hours have declined over time for women, but that motherhood remains negatively associated with women's labor supply. In contrast, I find little change over time in the relationship between family roles and responsibilities and wages of men.

In my second chapter, I asked how mothers who are sole or primary earners describe and make sense of how they share domestic labor with their husbands during COVID-19. I found that mothers describe fathers assuming more childrearing than themselves, but all the mothers I interviewed participate in cognitive domestic labor and many still participate in housework. The mothers in my sample endorsed gender equality, but some perceived domestic gender equality as fluctuating through the marriage, and others believed that either a man or a woman can specialize in paid or domestic labor throughout the marriage.

In my third chapter, I asked whether the wage and labor supply gaps between mothers and childless women varied by the average commute time where women live. I found that these gaps were largest in areas with long average commute times, and smallest in what I call *family-friendly communities* with short average commute times.

The results of this dissertation have important implications for future research on working motherhood. The first chapter of my dissertation demonstrates that working women have made progress over the years, but the supplemental results suggest there may be some selectivity driving these results. Although the decline in maternal labor supply has attenuated over time,

there is a persistent negative relationship between motherhood and labor force participation. It is possible that mothers who remain in the labor force may be in higher paying jobs, have more access to paid or unpaid childcare, more egalitarian attitudes towards gender roles, or partners with more egalitarian attitudes towards gender roles than mothers who drop out of the labor force. This finding suggests that future research should focus on identifying the mechanisms influencing maternal labor supply.

The second chapter of my dissertation suggests that the homemaker role may be a different job description for women than for men because homemaker fathers did not assume all the domestic labor. However, this study focused on the perspective of mothers who were highly educated and high-income. Future work should interview both members of the couple, and interview different-sex couples with lower levels of education and income than the mothers in my sample. For example, class—rather than gender—may influence the homemaker role. Homemaker fathers in high-income households may not expect to do all the domestic labor because they typically rely on nannies and housekeepers, which may also be the case when the homemaker is a mother.

The final chapter of my dissertation finds a link between maternal labor outcomes and characteristics of the communities where women live. This paper focused on the average commute time where women live, but there are many other characteristics of communities that could also influence maternal labor outcomes. For example, communities with affordable childcare may have higher maternal wages and labor supply than communities without affordable childcare, because the price of childcare may affect working mothers' ability to rely on others to supervise their children.

In my future research, I would like to expand my second and third dissertation chapters. I

would expand my second dissertation chapter by interviewing both members of different-sex couples where mothers outearn fathers. By interviewing both members of the couple, I may be able to capture homemaker fathers' gender ideologies, and discover whether there is misalignment between how mothers and fathers perceive fathers' role in the family. If possible, I would reinterview these couples over the course of their relationship. In my second dissertation chapter, mothers who had just become financial providers expressed more tension with their husbands than mothers who were financial providers since before the pandemic. It is possible that most mothers who outearn their husbands initially expect their husbands to do all the domestic labor, but end up rationalizing doing some domestic labor themselves to protect the relationship. However, interviewing mothers at one time point limits how well I can infer about how they perceived their husbands' homemaker role over course of the relationship.

I would like to expand my third dissertation chapter by formulating a theoretical concept of the *family-friendly community*, and testing other qualities (e.g., affordable childcare, crime rates, quality schools, and more) besides average commute times. I also hope to investigate whether the results I observed hold when I look at a MSA instead of a PUMA. PUMAs are smaller than MSAs, such that people might move to a different PUMA to resolve work-family conflict issues, but they may not be able to move to a different MSA given MSAs comprise of larger geographic areas.