

**Benefits of the Balancing Act:
Motherhood, Employment and Mental Health**

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Abstract

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Variant findings on the benefits and strains of combining employment and family roles encourage investigation into the mechanisms and conditions under which employment improves the well-being of individuals who perform the greatest amounts of family caregiving labor-- mothers caring for children. In this dissertation, I explore the effects of employment on depressive symptoms in light of gendered parental responsibilities. Two possible mechanisms through which employment may confer mental health benefits are explored: identity accumulation, and for married women, gains in relative spousal resources. First, motivated by symbolic interaction perspectives on identity, I examine how the mental health effects of employment for mothers vary according to their attitudes about the compatibility of employment and childrearing. Secondly, I draw on household bargaining and resource perspectives to examine whether the increase in relative spousal earnings generated by employment are associated with fewer depressive symptoms among married women. Finally, I approach the social roles of parenthood and employment from a life course perspective, considering their effects on the distribution of depressive symptoms by age for men and women. These analyses enrich understandings of how and when employment improves mental well-being, and highlight the force of gendered parental responsibilities in shaping the effects of work and family roles.

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DEDICATION

To my parents,
in appreciation of their great
efforts to balance employment and family.

CHAPTER ONE: INTRODUCTION

I. INTRODUCTION

Employment: a burden or boost for mothers' well-being?

The rise in women's labor market participation during the second half of the Twentieth Century contributed to dramatic changes in the daily organization of family life. In 1975, just under half of women with children under the age of 18 worked for pay. By the turn of the century, the majority of U.S. women, 71 percent, combined paid employment with childrearing (Bureau of Labor Statistics 2013). Notably, the relatively short time period that most women spend out of the paid labor force suggests that these cross-sectional rates of mothers' employment understate the proportion of women who simultaneously navigate work and family pathways. For example, among women who had two children during the 1980s and 1990s, less than thirteen percent were continuously out of employment in the months leading up to and the two years following childbirth (Hynes and Clarkberg 2005). Accordingly, the large majority of mothers, even so called "stay-at-home moms," ultimately spend time juggling the demands of employment and caring for children.

Overall, the shift towards high rates of women's labor force participation has been beneficial for women's well-being. A body of research documents that employment is associated with improved mental and physical health (Klumb and Lampert 2004, McMunn et al. 2006, Moen, Dempster-McClain and Williams 1992, Pavalko and Smith 1999, Ross and Mirowsky 1995). Despite the time demands posed by childrearing, there is also evidence that the health benefits of employment extend to mothers (Frech and Damaske 2012). Even among mothers with infants, employment reduces symptoms of depression provided that women either prefer to be employed

or have a high quality job (Usdansky et al. 2012). The rise in women's employment has also contributed to a reduction in gender health inequalities. As Schnittker (2007) reports, rising rates of women's employment narrowed gender disparities in self-rated health between U.S. men and women from 1974-2004 (Schnittker 2007).

Yet despite the salubrious effects of employment for women generally, mothers' disproportionate burden of housework and childcare, and experience of labor market inequalities, suggests that mothers may not reap the full well-being benefits that employment typically offers. Though mothers' employment has been statistically normative for decades, the organization of employment and family care continues to be shaped by the historical legacy of women's specialization in unpaid family caregiving. Men have made modest increases in their contributions to housework and childcare time since the 1970s, but women continue to perform the bulk of housework and childcare, even when employed full time (Bianchi et al. 2012). At the same time, employment firms continue to be organized around the assumption that workers are available for full devotion to employment, without being hindered by family caretaking responsibilities (Williams 2000). Accordingly, women with children receive lower wages for employment (Budig and England 2001), and mothers face discrimination in the labor market compared to fathers and childless women (Correll, Benard and Paik 2007).

There is evidence that the competing time demands of employment and family care have especially negative consequences for mothers' well-being. Fathers generally have more free time than mothers (Mattingly and Bianchi 2003), and compared to moms not working for pay, employed mothers enjoy less sleep, personal time, and time with friends (Bianchi, Robinson and Milkie 2006). More importantly, there are gender differences in the consequences of time use for mental health. Though employed mothers and fathers both report feelings of time deficits and

conflict between work and family, several studies indicate that competing work and family demands are only linked to mental distress for women (Glavin, Schieman and Reid 2011, Nomaguchi, Milkie and Bianchi 2005). For example, Glavin and coauthors report that experiencing similar types of work-to-family spillover (i.e. attending to work-related phone calls or emails during evening family hours), is associated with feelings of guilt and distress for mothers but not for fathers. Similarly, time spent multitasking is associated with an increase in psychological distress and feelings of work-family conflict among mothers but not for fathers (Offer and Schneider 2011).

Disentangling the Effects of Employment on Mothers' Mental Health

This dissertation is motivated by a seemingly disparate set of research findings that identify negative mental health effects of work-family conflict and salubrious effects of employment for women. Both areas of research draw on theoretical approaches emphasizing social roles. Findings on the health benefits of having a job offer support for the perspective that accumulating multiple social roles improves well-being, as each role provides an additional arena for success and source of identity and resources (Sieber 1974, Thoits 1983). In contrast, findings on the mental strains of work-family conflict offer support for the perspective that employment and family roles compete against one another and produce role strain (Marks 1977). Yet within each area of research, there remain gaps in researchers' understandings of the mechanisms through which employment either confers well-being benefits or generates distress.

A body of research from scholars interested in gender and family dynamics tests the relevancy of household bargaining models and symbolic interaction perspectives on gender for understanding women's performance of paid and unpaid labor. These theoretical frameworks

have less often been applied to understanding health outcomes associated with women's employment. By drawing from symbolic interaction perspectives on identity, household bargaining theories, and the life course perspective, this dissertation seeks to identify the conditions under which employment confers mental health benefits for mothers, and the mechanisms through which those benefits may accrue. In doing so, I aim to enrich understandings of the relationship between employment and parental roles, and its effect on well-being.

II. PERSPECTIVES FOR UNDERSTANDING WORK AND FAMILY ROLES

The three empirical studies of this dissertation draw on the perspective that social roles are rooted in performance (Goffman 1956), as well as the perspective that pressure to conform to gender norms permeates across all social roles and contexts (West and Zimmerman 1987). This approach motivates my attention to gender in shaping the effect of parenthood and employment on depressive symptoms. Within the three empirical chapters of this dissertation, I draw from additional theoretical perspectives, including theories on identity, household resources and bargaining, and the life course perspective. Yet for each of the theoretical perspectives applied, the perspective that pressure to conform to gender norms permeates across social roles suggests that the processes and conditions under which employment improves well-being are different for men and women.

Social Roles

Goffman understood social roles as a building block of society, arguing that social interactions rest upon individuals' enactment of social roles, and that these role enactments serve

to define both the self at the individual level and larger social structures. As Goffman writes, “To *be* a given kind of person, then, is not merely to possess the required attributes, but also to sustain the standards of conduct and appearance that one’s social grouping attaches thereto” (Goffman 1956:75). The link between identity and role performance is evident in qualitative research on mothering. Anita Garey argues that when women largely identify themselves as mothers, they necessarily “perform motherhood” for identity maintenance. As Garey describes, “To explain who they are, [mothers] talk about what they do” (Garey 1999: 29). For example, participating in a child’s school field trip indicates to themselves and others what *kind* of mother they are-- an attentive mother who is not too busy to be involved in her child’s education (Garey 1999).

As an analytical tool, the theoretical construct of social roles is valuable to sociologists seeking to understand health and well-being. Role accumulation (Sieber 1974) and role strain (Goode 1960) perspectives alternately suggest that accumulating multiple social roles, such as those of employee and parent, are either beneficial or detrimental to individuals’ well-being. The role strain perspective, reflected in research on work-family conflict, argues that individuals have limited resources with which to meet the responsibilities and behavior expectations for social roles. Accordingly, having too many role demands is expected to undermine well-being (Goode 1960, Marks 1977). Given the great time investments involved in employment and mothering, role strain perspectives suggest that combining the social roles of employee and parent may be particularly apt to cause mental distress.

In contrast, role accumulation perspectives (Sieber 1974, Thoits 1983) suggest that the rewards gained by accumulating multiple social roles outweigh the stress posed by increased role demands. Sieber (1974) describes that a greater number of social roles may enhance well-being

by providing individuals with additional rights and liberties, venues for success, resources (such as social networks or income), and identities. These gains are expected to promote well-being. For example, earnings from the social role of employee can be used to purchase a variety of amenities linked to health, including foods, medical care, and housing within better neighborhoods. Role identities have received particular attention for promoting mental health. Most notably, Thoits (1983) has emphasized the benefit of identities for mental well-being, arguing that additional role identities protect individuals from depression and anxiety by guiding behavior and promoting a meaningful existence (Thoits 1983).

Gender Performance

While social roles, such as that of an employee, might theoretically confer similar benefits to men and women, the perspective that individuals are continually accountable for socially appropriate gender behavior suggests that social role behaviors, and the mental effects of those role behaviors, are different for men and women. Drawing on Goffman's dramaturgical approach (Goffman 1956, Goffman 1977), West and Zimmerman argue that individuals perform gender by engaging in activities that have been socially labeled as either masculine or feminine. Gender performance perspectives have been used to explain a variety of gendered behaviors, and have been especially influential for scholars seeking to understand the division of paid and unpaid household labor (i.e. Bittman et al. 2003, Brines 1994, Potuchek 1992, Schneider 2011, Thébaud 2010).

The "Doing Gender" approach is differentiated from the perspective of gender as a social role by West and Zimmerman's argument that gender categories cross identities and settings, and

require ongoing maintenance.¹ The pervasiveness of pressure to exhibit gender in socially sanctioned ways suggests that even if men and women display the same actions and attributes when enacting social roles, they will be held accountable by themselves and others in gender-specific ways. This process is evident in Correll’s research on discriminatory hiring practices for parenting role behaviors, where noting involvement in a parent-teacher association on fictitious resumes resulted in improved hiring outcomes for men, but reduced hiring outcomes for women (Correll 2004). Similarly, there is evidence that men and women judge the value of their own wage-earning differently, with men being more likely to view their employment as breadwinning and women to view their wages as supplementary income (and thereby less valuable) (Potuchek 1992, Potuchek 1997). Accordingly, studies within this dissertation are motivated by the expectation that gender shapes the effects of combining the social roles of employment and parenthood on mental health.

III. RESEARCH QUESTIONS

The studies of this dissertation investigate three questions about the effects of the social role of employment on mental well-being in light of gendered parental responsibilities. Because I am interested in overall mental well-being as a product of social roles, the studies investigate individuals’ experience of symptoms associated with depression rather than the prevalence of mental illnesses such as clinical depression or anxiety.² The first two studies seek to better understand the conditions and mechanisms through which employment impacts depressive

¹ In contrast, Goffman described that individuals needed to perform social roles in “front stage” social settings, but could break for social role performance when “back stage” or in social situations where a given social role was not relevant.

² The distinction between symptoms associated with depression and depression as a mental illness is further discussed in Chapter 2.

symptoms, drawing on the identity accumulation perspective to understand the effects of employment status, and resource and bargaining perspectives to understand the effects of earnings. The third study investigates the effect of parenthood and employment from a life course perspective, and seeks to understand the interactive effects of gendered parental and employment roles for shaping the age-gradient in depressive symptoms as men and women age through the life course.

Question One:

Do attitudes about the compatibility of employment and childrearing alter the mental health benefit of employment?

Identity accumulation is a key mechanism through which employment has been hypothesized to improve individuals' mental health. Because identities provide a sense of meaning, purpose, and appreciation, having more social roles improves mental health by providing individuals with a greater sense of a "meaningful, guided existence" (Thoits 1983: 175). Accordingly, the identity accumulation perspective suggests that women who combine childrearing with employment will have improved mental health by having the identity of employee.

Yet symbolic interaction perspectives on identity also posit that in order to reap mental health benefits from a social role, individuals must feel successful in their role performance (Marcussen, Ritter and Deborah 2004, Stryker and Burke 2000). Accordingly, there is reason to suspect that gender attitudes about the compatibility of childrearing with employment alter the mental health benefits of adding an employment identity to one's identity as a mother. In the first empirical study, I consider this possibility by examining if the mental health benefits of employment vary according to women's attitudes about the compatibility of employment and

family care. Because attitudes about mothers' employment are expected to be especially salient among women caring for children, in the first empirical chapter I sample only mothers with children under the age of 18.

Question Two:

Are relative spousal earnings a mechanism for improving mental health?

In the second study, I investigate if increases in relative spousal earnings are a mechanism through which employment improves the mental health of married men and women. Earnings are a key resource gained from the social role of employment. Resource perspectives suggest that spouses with greater control over household resources enjoy greater decision-making authority (Blood and Wolfe 1960), which should increase women's ability to organize daily family life in ways that reduce their own stress levels and increase their well-being. Similarly, research on household bargaining cautions against the assumption that couples pool income (Lundberg and Pollak 1996, Lundberg, Pollak and Wales 1997, Treas 1993). Thus, women may be more inclined to spend their own earnings rather than family income or spousal earnings on services that improve their well-being. Greater personal earnings may be especially beneficial to mothers, as earnings might be used to purchase goods and services that reduce work-family conflict, including high-quality or after-hours childcare, prepared meals, or cleaning services.

At the same time, there is evidence suggesting that expectations for traditional gender performances mean that women who earn more than their spouses do not reap gains in bargaining power as a result of contributing greater shares of household earnings (Hochschild 1989, Tichenor 1999). Accordingly, gender differences in the effect of spousal earnings shares may depend upon whether couples' earnings shares adhere to the expectations for husbands to be

primary breadwinners. Gender differences in the effects of earnings may be especially salient for parents. Though fatherhood ideals affirm the value of men's earnings by emphasizing breadwinning (Townsend 2002) motherhood ideals emphasize the performance of unpaid labor and direct care-giving (Hays 1996). These gendered parental roles may alter the saliency of spouses' relative earnings for promoting mental health for both men and women. Thus, I sample married men and women to investigate how the effect of relative earnings shares varies by gender and parental status.

Question Three:

How do parenthood and employment shape mental health across the adult life course?

My dissertation's third study examines how the effects of employment and parenthood on mental well-being vary as individuals age through prime employment and childrearing years. Aging is typically accompanied by transitions in and out of employment and family roles, and existing research links the greater likelihood of employment and marriage at midlife to the age-gradient in depressive symptoms. On average, symptoms of depression decline in early adulthood, reaching their lowest frequency at midlife. The increased likelihood of being employed or married contributes to declining depression as individuals age towards midlife. Conversely, the lower likelihood of being employed or married at older ages is associated with worse mental health in later years (Clarke et al. 2011, Mirowsky and Ross 1992).

Yet in addition to varying the likelihood of occupying work and family roles, aging is also associated with changes in the activities and rewards of social roles. This may be particularly true for the social role of parenthood, where caregiving demands change as children grow older. Prior research indicates that negative work-family conflict is lowest among older workers,

suggesting that completion of the primary parenting years increases the mental health rewards of employment (Grzywacz, Almeida and McDonald 2002). Whether the effects of parenthood and employment on depressive symptoms change as individuals and their children age, or how those changes contribute to the age-gradient in depression, remain unknown. To investigate these questions, I examine the age-gradient in men's and women's depressive symptoms by parental status, and test whether the effect of employment on mental health changes with age and the presence of younger or older children.

IV. IMPORTANCE OF THE RESEARCH

Why Investigate Mental Well-Being?

The key outcome for all analyses in this dissertation is depressive symptoms. Depressive symptoms should be of interest to scholars interested in gender, family, and the labor market, as well as those interested in broader issues of health and stratification. Health may commonly be conceptualized as a biological, rather than social phenomenon by the general public. Yet health is also a product of social conditions, including employment. The rise in women's labor force participation during the second half of the Twentieth Century was associated with a narrowing of gender disparities in self-rated health that were once assumed to be due to biological sex differences (Schnittker 2007). Similarly, declining employment among women with lower levels of education relative to the employment rates of more educated women have contributed to a widening of the education gaps in life expectancy among white women (Montez and Zajacova 2013). As others have argued, sociologists have much to contribute to unraveling the social causes that promote health disparities (Harris 2010, Schnittker and McLeod 2005). This may be particularly true for our understandings of gendered health disparities, where the robust body of

research on gendered behaviors within the family, and gender inequalities in the labor market, provide guidance for identifying social processes that contribute to men's and women's health.

I began this dissertation not as a health scholar, but as a researcher interested in gender inequalities in paid and unpaid labor. Yet I found mental health to be a compelling area for research because in contrast to earnings or occupational attainment, mental health is a reflection of gender inequality that transcends discussions of choices or preferences for employment. Despite evidence of mother's high commitment to employment (Bielby and Bielby 1984), and similar workplace effort across mothers and fathers (Kmec 2011), research on gendered employment inequalities has been met with questions about the extent to which employment inequalities reflect differences in preferences for employment or various occupations (see for example England 2010, and comment by Reskin and Maroto 2011).³ Other gender scholars have made compelling arguments that preferences are best understood as a reflection of gendered, and unequal, social contexts (Correll 2004). Nevertheless, the reality that some women prefer to be home full-time with young children (Usdansky et al. 2012), encourages attention to multiple forms of gender disparities that may be impacted by gendered employment arrangements.

Mental well-being is one such form of gender inequality. Symptoms of depression are more common among women than men across a variety of settings (Hill and Needham 2013, Hopcroft and Bradley 2007, Mirowsky and Ross 1995, Piccinelli and Wilkinson 2000). Though some have argued that gender differences in depressive symptoms are due to variation in the types of mental health disorders afflicting men and women (Rosenfield et al. 2009), others report that women genuinely experience higher rates of distress (Mirowsky and Ross 1995). As a reflection of

³ Notably, evidence of within-occupation gender inequality discourages assumptions that occupational preferences drive gender labor market inequalities. Aisenbrey, Silke and Hannah Brückner. 2008. "Occupational Aspirations and the Gender Gap in Wages." *European Sociological Review* 24(5):633-49. doi: 10.2307/25209192.

distress that might stem from both family and employment spheres, the presence of depressive symptoms is a measure of well-being that adds to a richer understanding of the consequences of gender arrangements within employment firms and families.

Why Investigate Employment Status?

There is a dynamic relationship between stratification in the paid labor market and the proportion and composition of women out of the labor force. Because most women who are out of the labor force ultimately return to employment (Hynes and Clarkberg 2005), the populations of stay-at-home and working moms are best understood as largely overlapping groups of women, many of whose members weave back and forth between periods of employment and non-employment. Accordingly, even women who are not currently working for pay are impacted by conflict between work and family roles. Qualitative research indicates that women are likely to leave employment because of a lack of employer accommodation for family concerns (Stone 2007; Blair-Loy 2003). The importance of considering employment status when examining gender stratification in the paid labor market is further evidenced by studies illustrating that accounting for the proportion of women out of the paid labor force changes our understanding of occupational gender inequality (Cohen 2004, Pettit and Hook 2009).

Though studies of work-family conflict that sample only employed men and women have been valuable in drawing attention to gender differences in the experiences of employment, omitting women out of the labor force from discussions of work-family conflict implicitly suggests that the social construction of employment and motherhood as conflicting roles is only consequential for the well-being of women with jobs. Yet despite media stories that frame “Opting-Out” of paid employment as a respite from the demands of work-family conflict (Belkin

2003), the notion that stay-at-home mothering is neutral or positive for women's well-being is seriously undermined by employment's association with better health. At the same time, the documented psychological consequences of work-family conflict for mothers caution against concluding that the health impacts of work-family conflict are trivial in comparison to the benefits employment confers. Investigating when and how employment improves well-being is one way of developing a more inclusive understanding of the effects of competition between work and family roles on mental health.

Why Now?

The present time period is uniquely suited to utilizing longitudinal data for studying the effects of employment on mothers' mental health at multiple points during women's childrearing years. The studies of this dissertation investigate the mental health effects of employment for the youngest members of the Baby Boom Generation, born between 1957 and 1964. The sampled cohort members were teens and young adults during the 1970s and 1980s, a time of dramatic increases in the rates of women's employment that increased women's identification with employment. Whereas many women of the previous cohort entering adulthood during the 1960s and 1970s had not anticipated being employed as adults, late Baby Boom women were the first cohort of women who both expected to be employed during the majority of their adulthood years and went on to experience high rates of employment (Goldin 2006). Given that most members of the cohort have only recently reached age 50, the present day marks a unique time period when it is possible to study the effects of employment over multiple points in the adult life course for women who largely anticipated combining the social roles of parenthood and employment.

The present moment is also marked by a degree of economic inequality and economic uncertainty that make the need for a full understanding of the ways in which employment impacts mothers' mental health especially pressing. Among married-couple and single-parent families alike, women's earnings are an integral component for households' economic survival. Even before the Great Recession, the decline in real wages for men, paired with increased housing and educational costs, created an economic climate where many families could not afford to lose mothers' income without making substantial standard of living adjustments (Warren and Tyagi 2004). Wives' tendency to increase their earnings when husbands experience a job loss (Mattingly and Smith 2010), suggests that in the early Twenty-First Century, thus far marked by economic instability and increasing economic inequality, women's employment is more important for families' economic well-being than ever before.

The necessity of women's employment for supporting families financially suggests that employment preferences are not the primary drivers of mothers' employment status. Indeed, women describe their employment pathways as series of decisions that were best for their families, rather than a series of choices matching their personal needs and preferences (Damaske 2011). Even among professional women with economic resources, mothers are more apt to be 'pushed' out of employment by inflexible workplace policies that make combining childrearing and employment difficult than they are likely to be 'pulled' home by a desire to engage in full-time childrearing (Stone 2007). If mothers were free to choose to work for pay or devote themselves to childrearing in response to their personal preferences and mental health needs, we might reasonably expect to find little variation in the mental health effects of mothers' employment status net of the resources employment provides. Instead, the common misalignment between women's employment decisions and personal preferences (Damaske

2011, Gerson 1985) makes understanding the ways in which employment impacts mental health all the more important.

V. STRUCTURE OF THE DISSERTATION

This dissertation is organized around the presentation of three empirical analyses investigating the mechanisms and conditions under which employment might improve mothers' mental well-being. Because each analysis is framed by a different theoretical perspective, I embed further discussions of theory within the empirical chapters. In Chapter Two, I describe the data and methods used in the dissertation, as all analyses employ similar quantitative methods and sample from the 1979 Cohort of the National Longitudinal Survey of Youth.

In Chapter Three, "Even Supermoms Get the Blues: Employment, Gender Attitudes and Depression," I present the first empirical analysis, exploring how attitudes about the compatibility of employment and childrearing condition the effect of employment on depressive symptoms. In Chapter Four, "Bargaining Bonus or Breadwinning Burden? Relative Earnings, Gender, Parenthood and Mental Health," I explore if the increase in relative spousal earnings generated by employment is a mechanism through which employment benefits the mental health of married women, and how parenthood and gender vary the effects of relative spousal earnings. In Chapter Five, "Depression and the Gendered Life Course," I investigate the effects of parenthood and employment in shaping the age-gradient of depressive symptoms for men and women. I conclude the dissertation with Chapter Six, which discusses findings from each empirical analysis in relationship to one another, and the implications of findings from this dissertation for our understanding of the gendered social roles of parenthood and employment.

CHAPTER TWO: DATA AND METHODS

I. SAMPLE

The studies within this dissertation sample men and women from the 1979 to 2010 waves of the National Longitudinal Survey of Youth 1979 Cohort (NLSY79). Collected by the U.S. Bureau of Labor Statistics, the NLSY79 survey began with a sample of approximately 12,000 youth ages 14-22, born between January 1, 1957 and December 31, 1964, and living in the United States. Respondents were interviewed annually from 1979-1994, and biennially thereafter. Data collection is ongoing.

The sample was chosen for two reasons, the quality of data contained in the sample, and the cohort's temporal location. The NLSY79 is one of the best sources of nationally representative, longitudinal data with detailed employment information. Additionally, it provides the exact timing of marriage, divorce, and changes in parental status, as well as data on respondents' education and attitudes about employment and childrearing. The survey collected measures of depression in its 1992 and 1994 survey waves, and in its Age 40 and Age 50 Health Modules, for which data were collected between 1998-2006, and 2008-2010, respectively. Data for the Age 50 Health Module are still being collected for the youngest members of the cohort.

The NLSY 1979 survey samples the most recent cohort where the majority of members have passed through the bulk of their prime childrearing years. Accordingly, using the NLSY79 sample allows me to measure the effect of employment on depressive symptoms during early and late childrearing years. Given that the challenges of combining childrearing and employment change as children grow older, following changes in the effect of employment on depression as

children and parents age presents a fuller understanding of the relationships among parenthood, employment, and depression than would analyzing parents at a single time period.

A key limitation of sampling from the NLSY 1979 cohort, whose members are currently in their late forties and early fifties, is that the sample does not allow the studies in this dissertation to assess the effect of employment on the mental health of today's mothers of young children. There are some reasons to suspect that women currently juggling work and family demands have much in common with the experiences of their immediate predecessors. The NLSY79 sample captures individuals raising their children during an era when shifts towards greater women's labor force participation rates and more egalitarian family arrangements began to stall. Though the youngest baby boomer women contributed to the increase in women's labor force participation during the 1980s, labor force participation rates of mothers since the mid-1990s have been relatively stable (Boushey 2008, Bureau of Labor Statistics 2013). Similarly, while men and women's proportional contributions to housework shifted considerably during the 1970s and 80s, relative gender contributions to housework and childcare since the 1990s through until 2010 have been relatively stable (Bianchi et al. 2012).

Yet despite relative stability in the rate of mothers' labor force participation and the gendered division of household labor in recent decades, other trends caution against applying findings from the NLSY79 cohort to younger generations of parents. Young adults raised in an era with high rates of mothers' labor force participation tend to view egalitarian work and family arrangements as ideal (Gerson 2010), suggesting that the social roles of employment and motherhood may be more ideologically compatible for younger cohorts. However at the same time, economic trends, including the rise of unstable employment arrangements in the form of temporary and contract labor (Kalleberg, Reskin and Hudson 2000), as well as increased income

inequalities across families (Western, Percheski and Bloome 2008) may make juggling the competing time and resource demands of work and family roles even more difficult for today's parents, with implications for the effect of employment on mental health. Accordingly, conclusions drawn from this dissertation's analyses of the 1979 cohort should not be generalized to today's parents without further comparative analyses.

Aside from questions about the generalizability of findings from the NLSY 1979 cohort to other cohorts, the use of the NLSY79 data rather than a cross-sectional sample of men and women presents additional methodological benefits and drawbacks that merit discussion. A key benefit of using longitudinal data is that it allows me to follow a single cohort of men and women as they age through prime employment and childrearing years. Though cross-sectional data allow for comparisons across parents of different ages, and across parents with children of different ages, cross-sectional analyses risk conflating the effects of age and cohort. This risk is especially concerning given the changes in attitudes about the social acceptability of women's combining employment with childrearing. Attitudes grew increasingly supportive of mothers' employment during the post-war period, due to the combined effects of changes in individuals' attitudes and the replacement of older cohorts with more egalitarian younger cohorts (Pampel 2011). Similarly, at the turn of the Twenty-First Century, middle and upper-class childrearing ideals favored greater parental time investments in children than had the childrearing ideals of previous generations (Lareau 2003). Accordingly, following members of a single cohort helps to disentangle the effects of respondent's age and the age of their children from the effects of cohort differences.

Longitudinal data are also valuable for disentangling the causal effects of employment on depression symptoms from the possible selection of healthier women into employment. Scholars

of women's employment and health have highlighted concerns about selection bias, noting that the majority of studies do not adequately control for the selection of healthier women into employment (Klumb and Lampert 2004). Notably, the extent to which selection effects lead to overstating the health benefits of employment for women appears to be less of a problem for the NLSY79 cohort compared to analyses of older cohorts. In older cohorts, employed women were more likely to be healthier than their counterparts out of the labor force. However, as Pavalko, Gong, and Long (2007) argue, the increased ability of women with disabilities or health issues to remain employed during recent decades shifted the association between employment and good health. For the NLSY79 cohort specifically, prior research indicates that employed women have poorer self-rated health than housewives (Pavalko, Gong and Long 2007). Other studies indicate that while the selection of healthier individuals into employment is a concern, there are clear causal effects of employment for both physical and mental health (McMunn et al. 2006, Ross and Mirowsky 1995, Steele, French and Bartley 2013).

Despite the methodological strengths of using longitudinal data, the limited availability of mental health measures in the NLSY79 survey limits the presented analyses in several ways. Most notably, the NLSY79 sample does not contain mental health data on the youngest mothers. The first measure of depressive symptoms appears in the 1992 survey wave. At that time, the youngest members of the 1979 cohort are 27 years old. Thus, I am not able to capture the effects of combining employment and childrearing for parents in their early twenties. This omission is regrettable, particularly given that earlier childbearing is more common among women with lower levels of education. Given that education is associated with improved job quality, the presented analyses would risk over-stating the benefits of employment for mothers' mental health if mothers' employment was evenly distributed by education. However education also

increases the likelihood of employment among women (England, Garcia-Beaulieu and Ross 2004). Thus, the omission of mental health data during respondent's early twenties means that the study examines the effect of employment when a greater proportion of women are employed.

Concerns about the lack of mental health measures for mothers in their early twenties are also alleviated by the observation that parents of a variety of education levels contribute a measure of depression symptoms while they are raising children under the age of 6. Though the average age of first birth for the sample is 23, the majority of women in the sample have more than one child. Analyses of the moderating effects of infants, toddlers, and pre-school children on employment's benefit for mental health indicated that the modifying effects of infant, toddler, and pre-school children are comparable. Thus, while the lack of data on depression symptoms among the youngest mothers would present a concerning degree of sample selection bias for examining transitions to parenthood, it is less concerning for estimating the effects of caring for young children more generally.

Finally, like most longitudinal datasets, the NLSY79 sample has undergone attrition over the three decades since the survey first began. However, the retention rates for the NLSY79 survey have remained relatively high over the three decades of data collection. As of 1994, the overall sample retention rate was over 89 percent. By 2002, the sample response rate dropped to 80.9 percent. As of 2010, the retention rate was 75.9 percent. Notably, a sizable portion of the decline in the original 1979 sample, which began with over 12,000 respondents, was due to the NLSY survey's decision to drop the military supplemental sample of 1,079 individuals in 1985, and the supplemental sample of 1,643 financially disadvantaged white respondents in 1991. As of 1994, 8,891 respondents of the 9,964 individuals eligible for the sample participated in the survey.

Analyses of the NLSY 1979 sample indicate that many socio-demographic characteristics of the sample remain similar across multiple decades of survey waves. As Alison (2004) reports, the highest grade completed, marital and parental statuses, and poverty rates of women in the NLSY79 cohort appeared to be only modestly impacted by attrition (Alison 2004). My own analyses indicate that the sample's composition by race and ethnicity, marital status, gender, and the average highest grade of education completed change minimally across the four time points when data on depressive symptoms were collected (during the 1992-2010 survey waves). Sample means of these socio-demographic characteristics and CES-D depression symptom scores for each time period are presented in Table 2.1.

II. MEASURES

Outcome

The outcome of interest, depressive symptoms, is measured using a 7-item scale derived from the Center for Epidemiological Studies Depression Scale (CES-D). The CES-D was designed to assess depressive symptoms in the general population (Radloff 1977) and measures the number of depressive symptoms respondents experience, and the frequency of symptoms' occurrence. The CES-D scale has proved to be valid for the measurement of depressive symptoms for men and women (Ross and Mirowsky 1984), and for immigrant populations (McCabe et al. 2011). The shorter, 7-item CES-D scale has higher levels of internal reliability and consistency compared to the longer, 20-Item CES-D scale (Levine 2013). For the 7-Item CES-D scale used in the NLSY, respondents were asked to estimate how often during the prior week they experienced the following conditions: a) a poor appetite, b) trouble keeping their mind on tasks, c) depressed, d) that everything took extra effort, e) restless sleep, f) felt sad, and g) felt

they could not get going. Responses range from 0 (rarely or none of the time/1 day) to 3 (most or all of the time/5-7 days). Following a practice typically used for CES-D scales, responses for the frequency of experiencing each of the symptoms were summed together, creating a variable ranging from 0-21. The weighted count of depressive symptoms per week is presented for men and women in Figures 2.1 and 2.2.

There is an important distinction between the measure of symptoms of depression used in this dissertation and depression measurements intended to identify depression as a clinical mental health illness. Though very high scores on the CES-D depression scale used in the studies of this dissertation are associated with clinical depression, the presented studies do not examine the effects of employment and motherhood in contributing to depression as a mental illness. Rather, the studies examine variation in depressive symptoms across the full range of depression scores, capturing variation in the number and frequency of depression symptoms for individuals who might be diagnosed with depression, as well as for individuals who are experiencing mental distress but whose symptoms are not severe enough in number or duration to qualify a diagnosis of mental illness.

Symptoms of depression are an important measure of well-being, even if the severity of symptoms does not suggest clinical depression. From a sociological perspective, measures of depressive symptoms have been valuable for identifying the beneficial and detrimental aspects of work and family roles on mental well-being. For example, sociologists have previously linked symptoms of depression to low-quality jobs (Usdansky et al. 2012), unemployment (Dooley, Prause and Ham-Rowbottom 2000), and to negative role spillover between work and family domains (Schieman, McBrier and Gundy 2003). From a health perspective, research indicates that mental distress increases the risk of mortality, both for those with moderate or high levels of

distress (Ferraro and Nuriddin 2006, Robinson, McBeth and Macfarlane 2004) as well as for those whose levels of distress fall below clinical levels for mental illness (Russ et al. 2012). Accordingly, assessing the impact of employment on the full range of CES-D scores contributes to both sociological understandings of the relationship between work and family social roles, as well as a fuller understanding of the links among employment, parenthood, and health.

Covariates

The key explanatory covariates used in this dissertation vary across empirical chapters. Nevertheless, many of the covariates and the rationale for their inclusion are similar across analyses. Below, I discuss these covariates. Because the sample selection is somewhat different in each empirical analysis, descriptive statistics for the samples are presented within empirical chapters.

Employment: This study distinguishes between those who are either employed or not employed based on respondents' labor force status during the week of interview. The NLSY provides the weekly labor force status for each respondent, constructed from annual questions about the starting and ending points of jobs, and any gaps in employment at a particular firm. NLSY surveyors asked if respondents had experienced "any periods of a full week or more during which [they] did not work for employer, not counting paid vacations or paid sick leave." Respondents reported the starting and stopping dates of employment for each job held since their last interview, and any periods of not working while still employed by a particular employer.

In keeping with the social roles perspective, employment is measured dichotomously as either being employed or not having a job. Those who have a job or are on active military duty are designated as employed, while those who are unemployed or out of the labor force designated as

not employed. Supplemental analyses for all three empirical analyses indicated that separating unemployed individuals from those out of the labor force but not actively looking for work did not change the mental health effects of employment. The survey waves of the NLSY study utilized in this dissertation do not allow me to test how the effects of employment differ for those who might identify as housewives or stay-at-home moms compared to those out of the labor force for other reasons. Though early waves of the NLSY79 survey asked respondents to report their primary activity of the prior week, to which respondents could report that they were “keeping house,” this question was dropped in 1993. Moreover, women who report having been “keeping house” during the previous week may be out of the labor force for a variety of reasons. While public perception of mothers not currently employed may continue to designate these women as housewives or stay-at-home moms, the high degree of fluidity in and out of the paid labor force for mothers of the 1979 cohort cautions against conceptualizing women who do not have jobs as being career housewives. Use of a dichotomous measure categorizing individuals as either employed or not employed reflects the social roles theoretical perspective, and avoids erroneously assuming that women without jobs identify as career housewives.

Parenthood: Individuals are classified as parents if they have a biological, adopted, or step-child age eighteen or younger at home. I do not classify individuals with adult children as parents because the study seeks to investigate how the caregiving demands of childrearing alter the mental health benefits of employment. Age eighteen corresponds to the typical age of completion of high school, suggesting that age eighteen is a culturally and practically salient marker for distinguishing parents who are actively raising children from those without children in need of care.

In Chapters Three and Five, dummy variables denote the age of respondent's youngest child. The presence of young children is associated with negative work-family spillover (Grzywacz, Almeida and McDonald 2002) and a lower likelihood of entering employment (Budig 2003). Accordingly, in Chapter Three, which samples only mothers and focuses on employment status and employment attitudes, I control for having a child under the age of six. Chapter Four's focus is on relative spousal earnings rather than employment status, and I do not include controls for the age of respondent's youngest child. Though I investigated how having a young child might alter effects, the addition of a control variable for having a child under the age of six did not improve the fit of the model, and did not change the substantive findings. Chapter Five's focus on the aging of individuals and passage through stages of childrearing calls for greater attention to children of different ages. I use dummy variables to denote if the respondent's youngest child is under the age of six, between the ages of six and twelve, or a teenager between the ages of thirteen and eighteen. Respondents without a child under age eighteen comprise the referent category.

Marital Status: Because previous research indicates that marriage has effects on mental health and employment, controls for marital status are an essential component of the presented analyses. Chapter Three includes covariates for being married, or divorced or separated, with single, never-married women serving as the referent category. Chapter Four samples only respondents who are married at the time of interview. In Chapter Five I use a dichotomous measure of marital status as either married or not married because the analyses investigates age-variations in the effect of the social role of being a spouse. Not distinguishing between single and divorced individuals is in keeping with the social role theoretical perspective. Adding a control for being divorced did not improve the fit of the models or alter substantive findings.

Income and Earnings: All analyses include measures of the logged total household income. Income is a key component in the socio-economic gradient in health and mortality (Elo 2009), and rates of depression are lower among those with greater incomes (Andersen et al. 2009, Carter et al. 2009, Roxburgh 2009). Chapter Four specifically investigates the effects of relative spousal earnings, so includes control measures of respondents' own earnings, and their spouses' earnings. All earnings and income measures are for the previous calendar year, and are logged to adjust for skew.

Additional Socio-Demographic Controls: In addition to the covariates discussed above, the multivariate analyses also control for basic socio-demographic covariates including age, education, and being black or Latino,⁴ as all have effects on employment and well-being.

IV. METHODS

This study uses negative binomial models to assess the effect of covariates on depressive symptoms. I use negative binomial models because the CES-D score is a weighted count of depressive symptoms, capturing the number and frequency of depressive symptoms in a given week. The variable is over-dispersed, as the standard deviation is greater than the mean number of depressive symptoms. Others have conceptualized the CES-D scale as a weighted count of depressive symptoms, and accordingly, used negative binomial models for multivariate analyses (Asbridge et al. 2014, Cacioppo et al. 2006, Falba, Sindelar and Gallo 2009, Reynolds and Baird 2010, Zimmerman, Christakis and Vander Stoep 2004).

⁴ A covariate for Asian-Americans was not included due to the very small number of NLSY79 respondents who identified themselves as Asian-American (117 of the original 12,686 survey respondents in 1979).

Using a Poisson or negative binomial model is preferable to OLS regression for this study because the outcome variable is a weighted count of discrete depressive symptoms. Given the variable's over-dispersion, the use of regular Poisson models rather than negative binomial models risks downwardly biasing standard errors. Though scholars have used OLS models to estimate logged CES-D scores, the negative binomial distribution fits the data better than the normal distribution fits logged CES-D scores. Moreover, though log-transforming the CES-D scores reduces the variable's skew, the abundance of zero-value CES-D scores (approximately 25 percent) limits the usefulness of the log transformation for normalizing the distribution of depressive symptoms. Nevertheless, because OLS regression models are also commonly used to examine CES-D depression measures, I investigated how the model choice influences results. Analyses using OLS regression models produced similar substantive findings, and the statistical significance of estimates from negative binomial models are generally more conservative.

While there are a high proportion of respondents with a CES-D score of zero, I chose not to use zero-inflated negative binomial models. Zero-inflated negative binomial models are particularly appropriate in instances where the underlying causes of a count of zero differ from the underlying causes of having one or more counts of the dependent variable (Long and Fresse 2001). In the sample of NLSY79 respondents, men have a greater likelihood of reporting zero depressive symptoms. However, scholars have argued that women's greater likelihood of reporting more depressive symptoms reflects a greater experience of hardship and general distress, rather than a preponderance to experience depressive symptoms in lieu of other markers of poor mental well-being (i.e. heavy drinking, drug abuse, or anger) (Mirowsky and Ross 1995). Though one might use a zero inflated model because gender appears to impact the likelihood of reporting zero depressive symptoms, doing so would run counter-intuitive to the evidence

pointing towards women's greater experience of the hardships that lead to distress (Adkins, Wang and Elder Jr 2008) and reported distress across a variety of domains (i.e. anger, self-esteem, control) (Adkins, Wang and Elder Jr 2008, Kling et al. 1999, Mirowsky and Ross 1995, Mirowsky and Schieman 2008, Ross and Mirowsky 2002).

The analyses in the study employ several approaches to utilizing longitudinal data, based on the availability of key measures. In Chapter Three, I sample women when they are 40 years old, and use a lagged dependent variable to control for prior depression. In Chapters Four and Five, I pool measures of depressive symptoms and covariates for men and women from multiple survey waves. In pooled samples, I use random effects negative binomial models in order to control for correlations in the error across multiple observations for each respondent. The random effects estimation produced better fitting models than did simply pooling the data and employing a simple negative binomial model. In Chapter Four, I also use fixed effects negative binomial models to assess the effects of changes in earnings shares on changes in depression symptoms. Chapter Five uses the longitudinal data to examine variation in the effects of social roles on mental health as the cohort ages through the life course. The rationale for selected subsamples and the quantitative method employed for each analysis are further described within each chapter.

V. TREATMENT OF MISSING DATA

The NLSY79 sample contains non-ignorable missing data. For socio-demographic covariates, including employment, marital status, and the presence of children, only 2 percent or fewer cases had missing data. Just under 5 percent of respondents did not complete questions on gender attitudes. Data are missing in greater proportions for income. 17.5 percent of respondents were

missing data on total family income. Among married respondents, 16.7 percent of cases were missing data on their own earnings, and 22.4 percent were missing data on their spouses' earnings.

The implications for missing data on the results of this dissertation were explored using a variety of methods. Chapters Three and Five address missing data using multiple imputation. Multiple imputation is implemented using the “mi impute” command in Stata. Less than 1% of the full subsample who completed the 1992 and 1994 survey waves, and the health surveys at age 40 and 50, were missing data on the outcome variable of CES-D depressive symptoms. As recommended by White, Royston and Wood (2011), the outcome variable of CES-D depressive symptoms was included in the imputation models, but cases missing the outcome variable were dropped from analyses (White, Royston and Wood 2011). Interaction terms and variable transformations (i.e. logging household income) were created prior to imputation, following the “just another variable” technique for handling transformed variables and interaction term (von Hippel 2009). The “mi estimate” command was used to combine results from multiple imputations. Estimates using imputed data tended to produce smaller coefficients than did complete case analyses and the more conservative estimates using imputation are presented in Chapters Three and Five. Further details on the imputation models used for each analysis are presented within Chapters Three and Five.

In Chapter Four, I address missing income and earnings data by substituting missing income and earnings values with the income and earnings reported in the prior NLSY79 survey wave. While multiple imputation is generally a preferable method for addressing missing data, Chapter Four's analytical approach relies on a complex set of variable transformations and interaction terms involving spouses' relative and absolute earnings that undermine the reliability of

estimates using imputed values. The models include measures of spouses' and respondents' logged income, their relative income, and interaction terms between relative income, gender, and parental status. While assessments of the “just another variable” technique for handling multiple imputation for transformed variables and interaction terms have generally been encouraging of the approach (von Hippel 2009), it is unclear whether the approach satisfactorily allows for multivariate analyses to model the relationship of multiple transformed variables to one another. Moreover, the analyses for Chapter Four splits the sample between those who earn less than their spouse, and those who earn equal to or more than their spouse. Because the multiple imputation process generates varying values of relative spousal earnings for each set of imputed variables, splitting the sample based on an imputed value compromises the reliability of estimates.

Due to the combined concerns about estimate reliability, and the risk of over-identification when using imputed values in multi-level models (Shin and Raudenbush 2007), I chose not to use multiple imputation to address missing data in Chapter Four. Doing so limits the generalizability of results to respondents who do not report earnings, in favor of greater reliability and ease of replication. Notably, using imputed values for all missing variables other than earnings and relative spousal earnings produced similar results for random effects models, suggesting that the results presented in Chapter Four can be generalized to those missing data on other measures. Nevertheless, future research that compares findings from the NLSY 1979 data to findings utilizing data where fewer cases are missing earnings data would be useful for better understanding how non-response on earnings questions is related to household bargaining processes and mental health.

Figure 2.1:

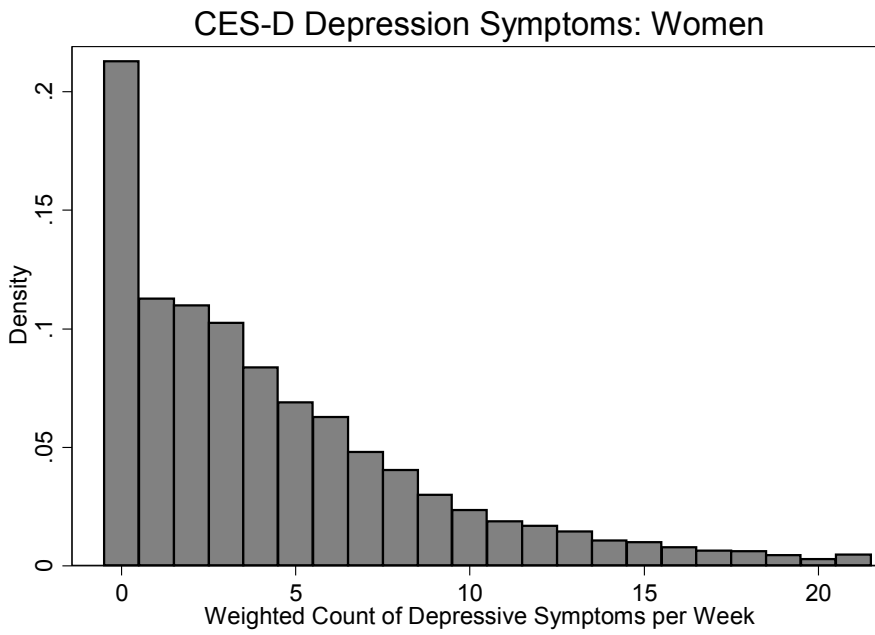


Figure 2.2:

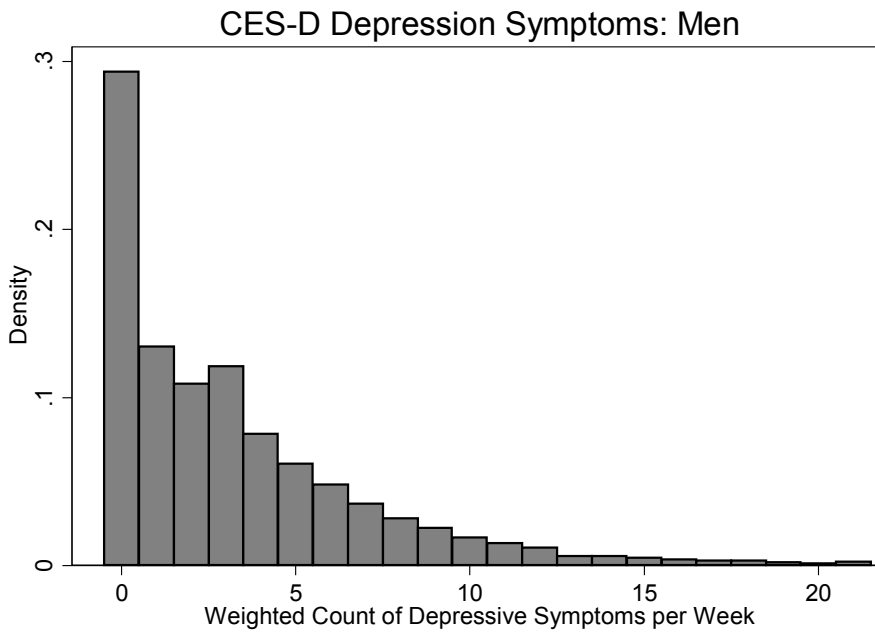


Table 2.1: Means of the NLSY79 Sample Characteristics across Time Periods

Variable	1992 Survey Wave		1994 Survey Wave		Age 40 Health Module		Age 50 Health Module	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
CES-D Depression Symptoms	4.20	4.04	3.77	4.08	3.37	4.22	4.06	4.57
Men	0.50	0.50	0.50	0.50	0.49	0.50	0.48	0.50
Women	0.50	0.50	0.50	0.50	0.51	0.50	0.52	0.50
Black	0.30	0.46	0.30	0.46	0.31	0.46	0.31	0.46
Latino	0.20	0.40	0.19	0.40	0.20	0.40	0.19	0.39
Married	0.53	0.50	0.54	0.50	0.56	0.50	0.55	0.50
Education: Highest Grade Completed	12.91	2.42	12.99	2.43	13.17	2.49	13.29	2.61
N	8,931		8,875		8,364		3,610	

CHAPTER THREE:
EVEN SUPERMOMS GET THE BLUES
EMPLOYMENT, GENDER ATTITUDES AND DEPRESSION

I. INTRODUCTION

Women face considerable resource and ideological challenges in combining employment and motherhood in ways that align with their own and others' standards. The task of fulfilling expectations for how mothers and employees "ought" to behave is made difficult by the lack of cultural consensus about the compatibility of employment and motherhood. Though gender attitudes have become more egalitarian in recent generations (Pampel 2011), the ideological compatibility of childrearing and employment remain disputed. There is evidence of divergent views about the meaning of employment for mothers, with some women viewing their employment as ultimately good for their children (Elvin-Nowak and Thomsson 2001) and others seeking to meet the standard of intensive mothering, which prizes mothers' unpaid, direct caregiving to children (Hays 1996).

Identity theories suggest that combining the social roles of employee and mother produce the greatest mental health benefits when individuals perceive themselves as being successful in both their employment and family roles. Identity theory posits that social roles improve well-being when individuals view themselves as performing role responsibilities to their own standards and to the standards they perceive others as having (Marcussen, Ritter and Deborah 2004, Stryker and Burke 2000). Similarly, self-discrepancy theory predicts that psychological distress occurs when individuals' perceptions of their own behaviors, attributes, and achievements are

incongruent with individuals' aspirations, and their expectations for how they "ought" to be (Higgins 1987).

Do mothers' views about the compatibility of motherhood and paid work impact the mental health benefits of employment? Though identity theory tends to emphasize social structure as determining individuals' identity and perceptions of the behaviors appropriate for social roles (Stryker 1980), identity theorists also recognize that social roles are comprised of both "conventional" expectations about social roles and individuals' own, "idiosyncratic" interpretations of social roles (McCall and Simmons 1978). In the absence of a broad social consensus about the meaning and obligations of a social role, individuals' subjective attitudes about roles may become particularly influential in determining their role behaviors, their evaluation of their role performance, and the associated mental health consequences.

This study examines the effects of attitudes about mother's employment, employment status, and the interaction between the two, on changes in depressive symptoms. A body of scholarly work has investigated the effects of employment on women's well-being (see Klumb and Lambert 2003 for a review). Less attention in the form of quantitative research has sought to understand how the ideological contradictions between wage labor and family caretaking shape the health effects of employment on women. Existing research has found that attitudes and ideals influence how individuals view conflict between work and family roles (Hochschild 1989), the relationship between the division of household labor and marital satisfaction and stability (Greenstein 1996, Helms-Erikson 2001, Milkie et al. 2002), and the effect of parenting strains on depression (Roxburgh et al. 2001). By investigating if gender attitudes moderate the health benefits of employment, this study contributes to understandings of how individual gender attitudes function in the context of gendered institutions to shape well-being.

II. BACKGROUND

Multiple Roles & Mental Health: Theories and Evidence

Employment's beneficial impact on women's well-being has often been explained via the role enhancement perspective. This perspective, also referred to as identity accumulation (Thoits 1983), posits that holding multiple social roles brings additional resources and social support, resilience against role-stressors, and an enriched sense of self, all of which contribute to mental well-being (Marks 1977, Sieber 1974, Thoits 1983). Alternatively, there is the possibility that multiple roles detract from mental health. The role strain perspective hypothesizes that the demands of social roles may infringe on one another, leading to stress and other negative effects on well-being (Goode 1960, Marks 1977). Scholars focusing on work and family have argued that the roles of employee and parent are mutually beneficial when the activities associated with one role enhance one's performance in another role (Gareis et al. 2009, McNall, Nicklin and Masuda 2010). Conversely, role strain harms well-being when the responsibilities of one role interfere with performing the duties of another (Glavin, Schieman and Reid 2011, Grzywacz, Almeida and McDonald 2002, Hochschild 1989, Keene and Quadagno 2004, Marks 1977).

The role enhancement perspective has been supported by research examining the accumulation of multiple types of social roles (Thoits 1983), as well as for combining employment and motherhood specifically (Frech and Damaske 2012, McMunn et al. 2006, Moen, Dempster-McClain and Williams 1992, Simon 1995). Evidence that employment has either neutral or salubrious effects has withstood rigorous empirical investigations that distinguish between the selection of healthier women into the labor force and the effect of employment on health. Klumb and Lambert's (2003) meta-analysis concludes that of studies accounting for prior health conditions, the bulk find employment to have either neutral or

positive psychological consequences. Though women may be out of the labor force for a variety of reasons, research focusing specifically on women identifying as full-time homemakers indicates the homemaker role has negative implications for mental health due to social isolation (Shehan, Burg and Rexroat 1986).

The benefits of employment for mental health are not universal. Employment's benefits may depend upon the combinations of roles women hold. For example, Waldron, Weiss and Hughes (1998) argue that marriage and employment are functional substitutes for each other in promoting health, as employment improves the well-being for unmarried women, and marriage improves the well-being of women out of the labor force. There is also evidence that the benefits of employment are greatest when employment status matches employment preferences (Ross, Mirowsky and Huber 1983, Usdansky et al. 2012). Among mothers with very young children, a combination of desire for employment and job-quality moderate the employment-depression relationship. As Usdansky and colleagues (2012) report, women who desire employment or have high-quality jobs have better mental health than stay-at-home moms, but there is no gain for those in low-quality jobs who would prefer not to work for pay (Usdansky et al. 2012). Others have drawn attention to variations in employment patterns, finding that employment trajectories interrupted by unemployment have the most negative consequences for mental health (Frech and Damaske 2012).

Employment & Mothering: Complementary or Conflicting?

It is remarkable that most research points to employment's benefits for women given that the majority of paid employment occurs within institutions historically favoring a male-breadwinner and female-homemaker model of production. As a "greedy institution" that makes intensive

demands on workers' time (Coser 1974), the structure of employment is often characterized as being at odds with unpaid family care-giving demands (Williams 2000). Accordingly, research on work and family tends to emphasize conflict between work and family roles, highlighting in particular how women's greater burden of household and childrearing labor negatively impacts well-being (Bianchi and Milkie 2010). Similarly, research on employment documents the ways family care-giving responsibilities hinder women's, but not men's, advancement in the paid labor force (Correll, Benard and Paik 2007).

Yet despite the continued saliency of gender in organizing paid employment and unpaid household and childrearing labor (Padavic and Reskin 2002), there are other indications of institutional shifts within the United States that encourage a conception of motherhood and employment as compatible roles. After rising steadily until the mid-1990s, mothers' employment has been more or less stable and reflective of broad economic trends rather than shifts in desire for employment (Boushey 2008). As of 2012, nearly 65 percent of mothers with children under the age of 5 and 75 percent of mothers with children under the age of 18 were either looking for work or currently working for pay (Bureau of Labor Statistics 2013). The high rates of paid maternal work have been accompanied by shifts in social policies that affirm the compatibility of employment with family care. For example, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 was passed under the rhetoric that employed mothers made better role models for their children. Similarly, the Family Medical Leave Act of 1993 can also be viewed as supporting mothers' employment given that it provides job protection after temporary work leaves—encouraging returns to employment rather than lengthy time out of the paid labor force after childbirth.

The inconsistent institutional policies and practices that simultaneously encourage mother's employment and disadvantage mothers' labor market outcomes are mirrored by competing cultural narratives about the compatibility or incompatibility of mothering and employment. General Social Survey data indicate that gender egalitarianism and support for mothers' employment increased steadily during the 20th century, and is particularly diffuse among younger cohorts (Pampel 2011). Yet, these broader shifts towards approval of women's employment have not necessarily resulted in attitudes that ease the compatibility of childrearing and employment, as cultural support for time-intensive childrearing has actually increased since the 1970s (Cotter, Hermsen and Vanneman 2011). Accordingly, some scholars posit that intensive mothering, where mothers devote full attention to meeting children's needs whenever possible, remains "the normative standard, culturally and politically, by which mothering practices and arrangements are evaluated" (Arendell 2000); see also (Hays 1996, Williams 2000).

Gender Attitudes, Role Meaning, and Mental Health

Given inconsistencies in the broader social structure about the compatibility of paid employment and mothering, gender ideology may be a key characteristic that conditions mental health gains from employment. Researchers have previously pointed to orientation towards employment as a reason employment impacts men and women differently (Simon 1995, Wiley 1991). Gender ideology, and more specifically, attitudes about mother's employment, may inform women's role identities as mothers and employees. Qualitative research affirms McCall's and Simmons' (1978) assertion that role identity contains an individualistic component. There is evidence that some mothers interpret their employment as beneficial for both themselves and

their children. For example, Elvin-Nowak and Thompson (2001) describe Swedish women who stress the role of well-being transfers from women to their families. Mothers believe they should be available for their children, but also, that they will ultimately be better mothers if their own needs and desires are met. Similarly, Hays (1996) describes that some mothers manage the contradiction between their roles as workers and as mothers by arguing that their employment is ultimately good for their children.

Individuals' unique interpretations of roles may dictate roles' relative importance or centrality. McCall and Simmons (1978) and Stryker (1980) describe that individuals ascribe different levels of prominence to various social roles. Others argue that the centrality of roles for individuals impacts role satisfaction and overall self-esteem. Reitzes and Mutran (2002) find holding a worker role as central to one's identity has particularly negative effects on satisfaction with spousal and parental roles. This may be because women who place greater importance on their role as an employee experience greater distress when parental demands infringe upon paid employment.

There is evidence that gender attitudes vary the meanings individuals attach to paid and unpaid labor. Potuchek (1992) explored how gender ideologies shaped whether women conceptualized their employment as breadwinning, finding that women with egalitarian gender attitudes were more likely to describe their employment as breadwinning. Notably, of the gender attitude questions Potuchek employed, the most salient gender attitude question addressed the compatibility of women's employment with childrearing. Kroska (2001) assessed how gender ideology varied husbands' and wives' views of the goodness, powerfulness, and activeness of twelve social roles, including man, woman, wife, husband, breadwinner, mother, father, housewife, and househusband. Though the study found evidence of shared meanings for most

social roles, gender ideologies predicted divergent views in particular for the roles of homemaker and househusband. In similar work, Kroska (2008) reports that husbands and wives are more likely to rate the meaning of breadwinning similarly when wives have liberal gender attitudes.

Gender attitudes also influence perceptions of work-family conflict and unpaid labor, with consequences for well-being. For example, gender attitudes moderate how women perceive an unfair division of household labor, with traditionally-minded women being less likely to be dissatisfied with their husband's participation in household labor compared to egalitarian women (Greenstein 1995, Hochschild 1989). Similarly, Minnotte and colleagues (2010) find an egalitarian gender ideology links work-family conflict and marital dissatisfaction. Notably, there is evidence of a continued divergence between egalitarian attitudes and practices regarding the division of paid and unpaid labor (Loscocco and Spitze 2007, McHale and Crouter 1992). Early on, Hochschild (1989) observed that couples' division of household and childrearing labor often did not match wives' gender attitudes, and that couples generate myths in order to mask and or explain mismatches between attitudes and practices. In a more recent review of gender ideology research, Davis and Greenstein (2009) note that men's gender attitudes may bear greater influence on the division of household labor than women's, suggesting that mismatches between women's gender attitudes and the division of paid and unpaid labor remain common.

III. HYPOTHESES

In the context of competing work and family demands, individual attitudes may be particularly salient for moderating the mental health gains from combining motherhood with paid labor. Attitudes about mothers' employment may shape the effect of employment on mental health by influencing role meanings or role centrality, and accordingly, women's evaluations of

their role performance. This paper tests two hypotheses about the role of gender ideology in moderating the effect of employment on changes in mother's depressive symptoms.

H1: Attitude-Employment Congruency Protection: Employment will have a stronger effect on reducing increases in depressive symptoms as support for mothers' employment increases.

Alternatively, conceiving of motherhood and employment roles as compatible may, paradoxically, reduce the mental health benefits of employment. In accordance with role-discrepancy theory, the logistical difficulty of juggling paid employment and family care may most negatively impact women who believe they *should* be able to "do it all." While women with nontraditional gender attitudes are less likely to view employment as harming children, such women may also experience greater role-discrepancies in the event they are unable to perform employment and mothering tasks to their own and others' standards. In contrast, traditional gender ideologies may reduce the likelihood that work-family conflict results in role-discrepancies. If women expect work and family responsibilities to be incompatible, they may be less likely to negatively evaluate their performance as either mothers or employees when work and family responsibilities collide.

H2: Attitude-Employment Congruency Penalty: Employment will have a stronger effect on reducing increases in depressive symptoms as support for mothers' employment declines.

IV. DATA & METHODS

In order to investigate the above hypotheses, this study samples mothers from the 1979 to 2006 waves of National Longitudinal Survey of Youth (NLSY79) who have one or more children under the age of 18 in their home. The NLSY79 is the best source of nationally representative, longitudinal data with detailed employment information. Additionally, it provides the exact timing of marriage, divorce, and changes in parental status, as well as data on respondents' education and attitudes about employment and childrearing. In 1979, the NLSY first surveyed approximately 12,000 youth ages 14-22, born between January 1, 1957 and December 31, 1964, and living in the United States. Respondents were interviewed annually from 1979-1994, and biennially thereafter. As of 2002, the sample response rate was 80.9 percent. Restricting the sample to women with children in their household, who remained in the sample through completion of health measures at age 40 and answered questions about depression symptoms reduces the sample size to 3,000.

The study measures depressive symptoms when subjects are approximately 40 years old, drawing from the NLSY's Age 40 Health Module. This set of questions asks respondents about various health conditions, and is administered to respondents during the survey round immediately following their 40th birthday (from 1998 to 2006). Mothers aged 40 are of particular interest because women are more likely to be employed in their forties than during earlier ages (Mosisa and Hipple 2006). By measuring depression at age 40, the study does not capture women who may be most at risk for work-family conflict: those who are younger with fewer resources to manage work and family demands. However, compared to younger counterparts, women aged 40 are more likely to be caring for both children and older family members. Marks (1996) estimates that 20.4 percent of women between the ages of 35-49 provide unpaid care to

friends or relatives with chronic illnesses or disabilities. Thus sampling mothers at age 40 captures women at a time period when they are most likely to be both employed and still face considerable family care demands.

Variables

The outcome of interest, depressive symptoms at age 40, is measured using the 7-item Center for Epidemiological Studies Depression Scale (CES-D), which measures the number and frequency of depressive symptoms in a given week. The NLSY previously measured depressive symptoms in 1994, using the CES-D scale. Because past research has emphasized the importance of measuring prior depression when studying the relationship between employment and mental health (Klumb and Lampert 2004, Roxburgh 2009), respondents' 1994 CES-D scores are included as a lagged dependent variable.

This study distinguishes between those who are either employed or not employed based on respondents' labor force status during the week of interview. Employment is treated as a dichotomous variable in keeping with the identity accumulation perspective, which maintains that identities are maintained and promote mental health as social roles are affirmed via social interaction (Thoits 1983). As Thoits argues, the social statuses that denote the absence of a social role (for example, being divorced or unemployed) do not provide the sense of meaning or appreciation that social roles linking individuals to social institutions and social networks (i.e. employee, parent, spouse) provide, and therefore are not expected to result in identities that enhance mental health. Notably, supplementary analyses indicated that separating unemployed women from those out of the labor force for other reasons, and including interaction terms for

unemployment and gender attitudes, did not impact substantive findings about the effects of employment, attitudes, or the interactions between the two.

Women's attitude about the compatibility of employment with childrearing is measured using four questions that specifically address women's employment in relationship to family and childrearing responsibilities. I use responses from 1987, the last time the questions were asked prior to collection of depressive symptom data. The four attitude questions are a) A wife who carries out her full family responsibilities doesn't have time for outside employment, b) The employment of wives leads to more juvenile delinquency, c) It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of home and family, and d) Women are much happier if they stay at home and take care of their children. Respondents were asked if they agreed (4), strongly agreed (3), disagreed (2), or strongly disagreed (1) with each statement. Together, these four questions have a Cronbach's Alpha score of 0.81. Following an approach similar to those utilized by Greenstein (1995) and Glauber and Gozjolko (2011), agreement scores for each of the questions were summed together to form a composite score. The mean composite score of 8 on the 4-16 scale suggests that on average, sampled women tend to express more support than disapproval of mother's employment.

I grouped gender attitudes into categories because sensitivity analyses indicated that the moderating effect of work-family attitudes on the employment-depression relationship is not linear. Sensitivity analyses indicated that the most egalitarian employed women have a lower risk of depression compared to women with more moderate attitudes, and that there is a salient cut-off point for attitude scores' effect on depression at one standard deviation from the mean. Given these findings, I broke the attitude category into five categorical dummy variables based on mean attitude scores and standard deviations from the mean, reflecting if subjects display 1) minimal,

2) low, 3) medium, 4) high, or 5) absolute for women's employment. In regression analysis, displaying minimal support for women's employment is the referent category. To ameliorate concern that the study's findings might be driven by those with the most extreme gender attitudes, I ran the study models while excluding those with the very highest and very lowest gender attitude scores.⁵ These analyses did not indicate that the results were driven by outliers, so I retained respondents with all attitude scores in the sample. Notably, treating the gender attitude variable as a continuous rather than categorical variable produces results with similar substantive implications. Nevertheless, I chose to use categorical attitude variables because they detect non-linear effects and reflect the original categorical survey questions, as have others (Bulanda 2004, Davis 2008, Davis and Greenstein 2009, Greenstein 1995, Sanchez and Thomson 1997).

A dummy variable controls for the presence of children under age six. The presence of young children is associated with negative work-family spillover (Grzywacz, Almeida and McDonald 2002) and a lower likelihood of entering employment (Budig 2003). In results not presented, the age of the youngest child was substituted for the dummy variable denoting young children, and a control was added for the number of children under age 18. These changes did not impact the substantive results of the study.

Recent research on employment and depressive symptoms among mothers indicates that employment preference moderates the relationship between employment and mental health (Usdansky et al. 2012). As young adults, NLSY respondents were asked what they wanted to be doing at age 35. To differentiate the effect of preference for employment from the effect of

⁵ Those who responded strongly agree or strongly disagree to all attitude questions.

attitudes about the compatibility of employment and family care, I include a dummy variable equaling one if women reported wanting to be employed at age 35.

I also include several socio-demographic covariates in the model, including marital status, race, logged total family income, and level of education. Two dummy variables control for marital status, with single, never married women serving as the referent category. The model includes dummy variables for being African-American and for being Latina, as research indicates that attitudes towards motherhood vary by race (Collins 1994, Zinn 1990), as does the risk of depression (Roxburgh 2009). Because higher levels of education increase employment capabilities and are associated with gender attitudes, education is measured using a series of dummy variables: less than high school, high school diploma, some college, or a bachelor's degree. Those with less than a high school diploma comprise the referent group. Finally, because physical health is expected to increase the difficulty mothers face in balancing work and family care-giving tasks, the study controls for subjects' general self-rated health.

Hours of employment are one possible mechanism by which attitudes about mothers' employment may moderate the relationship between employment status and mental health. Moen and Yu (2000) find that dual-earner couples where one or both spouses work more than 45 hours per week report higher levels of stress and work-family conflict relative to couples where both spouses work 39-45 hours per week (Moen and Yu 2000). As a check for model robustness, in Model 3, I add dummy variables for working part-time, defined as fewer than 35 hours per week, and long hours, defined as working more than 45 hours per week.

Analytic Strategy

This study uses a negative binomial model to examine the impact of employment status, gender attitudes, and control variables on subject's depressive symptoms. In Model 1, the effect of variables is first assessed without interaction terms. In Model 2, interaction terms representing the product of employment multiplied by attitude categorical dummy variables are added to the model. Finally, in Model 3, I add covariates controlling for whether respondents work part-time or long hours.

As with many studies, missing data posed a potential source of sample bias. Four percent of sampled respondents supplied valid responses to at least one of the four attitude questions used in this study, but responded "I don't know" to one or more of the attitude questions. Rather than exclude the available attitude data or consider their attitude responses missing at random, I created a neutral value between "agree" and "disagree" to capture the "I don't know" responses. In regression models, the inclusion of these cases produced nearly identical coefficient estimates as did regression models excluding cases with missing attitude data.

I used multiple imputation to address potential bias posed by other missing covariates, as well as for missing attitude measures for the four percent of respondents who did not answer any of the attitude questions. Other covariates with missing data include income (16 percent missing), desire for employment at age 35 (4 percent missing), and employment status (3 percent). Following the practice advised by Von Hippel (2009), and White, Royston and Wood (2011), I created interaction terms prior to imputation, and included the outcome variable in the imputation models but excluded cases with missing outcome variable data from the final analysis (von Hippel 2009, White, Royston and Wood 2011). I generated twenty-five data sets and then combined the results using the "mi impute" and "mi estimate" commands in Stata. Analyses

using the imputed data rather than omitting cases with missing values produced smaller coefficient estimates of the effect of the employment-attitude interaction terms on depressive symptoms, so I present the more conservative estimates here.

V. RESULTS

Results from negative binomial regression models are presented in Table 3.2. The coefficient represents the change in the logged number of depression symptoms per week for a one unit change in a predicting covariate. Model 1 displays results from a reduced-form model without gender attitude and employment interaction terms. In this model, the effect of employment represents the effect of employment for all sampled women. In keeping with existing research, employment reduces the risk of increased depression symptoms. Relative to not having a job, being employed is associated with a predicted change of -0.124 logged depressive symptoms. When the interaction between employment status and gender attitude is not taken into account, the effect of gender attitudes on changes in depressive symptoms is not significant.

Model 2 adds interaction terms for the gender attitude categories and being employed. With the addition of the categorical interaction terms, the coefficient for the effect of employment in Model 2 (-0.363) now represents the effect of employment on changes in logged depressive symptoms for the referent group, women who display minimal support for mothers' employment. For women who display minimal support for mothers' employment, employment reduces the log of depressive symptoms by almost three times as much as employment reduced the log of depressive symptoms for all women measured together in Model 1. The effects of the gender attitude and employment status interaction terms are positive and significant for women with medium and high levels of support for mothers' employment. These terms indicate that

compared to displaying minimal support for mothers' employment, displaying medium and high support for mothers' employment reduces the mental health benefit of employment.⁶

In the presence of the gender attitude and employment status interaction terms, the coefficients for the gender attitude categories represent the effect of gender attitudes among women who are not employed. For women without paid jobs, medium or high support for mothers' employment reduces increases in depressive symptoms relative to displaying minimal support for mothers' employment.

Results also indicate that the increase in depressive symptoms is greater for women who previously stated they would like to be employed at age 35. Notably, the model coefficient reflects the effect of desiring employment among women of all labor force statuses. There are several possibilities why a commitment to employment is associated with increased depressive symptoms among both employed and non-employed mothers. Women who are unemployed or out of the labor force and previously desired employment may experience more depressive symptoms because their employment status does not match preferences. Among women currently employed, a strong commitment to employment may increase the negative effect of career setbacks on mental health, given the disadvantage mothers face in the labor market (Budig and England 2001, Correll, Benard and Paik 2007).

Of socio-demographic characteristic covariates, only being Latina significantly impacts depressive symptoms. Latinas report fewer depressive symptoms relative to non-Hispanic and non-black women. Household income is marginally significant (p-value 0.073), suggesting a

⁶ The effect of employment on women displaying a medium level of support for mothers' employment is calculated by subtracting the effect for the interaction term "employment x medium support" from the effect of employment for the referent group. The difference represents the predicted change in the logged count of depression symptoms associated with employment for women with medium levels of support for mothers' employment.

negative effect of household income, as expected. Prior levels of depression are associated with increased depression at age 40. Finally, worse self-rated health increases the likelihood of experiencing an increase in depressive symptoms.

In Model 3, controls are added for being employed and working more than 45 hours per week, and working less than 35 hours per week. Controlling for weekly hours of employment has a minimal effect on the overall model. Coefficients for the effect of attitudes, employment and the interaction between employment and attitudes changed slightly, but the substantive results remained the same. The failure of fewer work hours to explain the attitude-employment effect is consistent with research finding that modifying employment schedules and responsibilities does not reduce feelings of role overload for women (Higgins, Duxbury and Lyons 2010).

The moderating effect of having more egalitarian gender attitudes on the beneficial effect of employment is illustrated in Figure 3.1. The figure presents the predicted CES-D depression symptom scores by gender attitude and employment status, holding covariates from Model 2 at their means. Solid bars represent predicted depression symptoms, and lines denote 95 percent confidence intervals for the predicted values. When all other covariates are held at their means, employment only significantly reduces depression symptoms for women who report minimal support for mothers' employment. For women with high levels of support for mothers' employment, predicted values indicate no benefit from being employed relative to being out of the labor force. Though the predicted values of depression symptoms are lower for employed women with low, medium and absolute support for mothers' employment compared to women with similar attitudes who are out of the labor force, the overlapping confidence intervals reflect that the effect of employment is not statistically significant for those groups. In sum, only

women with the most traditional attitudes about employment and childrearing experience a statistically significant reduction in depressive symptoms from employment.

VI. DISCUSSION

Results indicate the beneficial effect of employment is greatest for women who express the most skepticism about the compatibility of employment with childrearing. These results support the second hypothesis, the Attitude-Employment Congruency Penalty Hypothesis, which posits that employment will have a stronger effect on reducing increases in depressive symptoms as support for mothers' employment declines. While this research is unable to determine why traditionally-minded mothers enjoy greater mental health benefits from combining the social roles of motherhood and employment, the finding is consistent with expectations drawn from identity and self-discrepancy theoretical perspectives. Self-discrepancy theory posits that self-appraisals and associated mental distress are informed by individuals' personal expectations about appropriate role behavior, as well as their sense of how others view their role performance (Marcussen, Ritter and Deborah 2004, Stryker and Burke 2000). Accordingly, benefits from combining the social role of employee and the role of mother will be greatest when women's performance of the responsibilities associated with each role are consistent with their expectations of how they and others think they ought to behave within those roles. Thus, women who expect difficulty in balancing work and family demands may experience the least distress when conflict between employment and childrearing responsibilities inevitably occurs because their experience of work-family conflict aligns with their expectations. In contrast, women who support the idea that women can successfully combine mothering and employment may be more inclined to evaluate their role performances negatively when work-family conflicts arise.

A complementary interpretation of this study is that traditionally-minded women reap the greatest benefit from employment because their attitudes match the institutional arrangements governing work and family roles. The sample of women used in this study were among the first cohorts of women where most identified with employment and had long-term employment trajectories that matched early career expectations (Goldin 2006). Yet their expectations for employment and espoused gender egalitarianism met workplace and family practices that remained gendered, prioritizing male breadwinning and dividing unpaid household and childrearing labor along gender lines. Symbolic interaction perspectives on the performance of gendered behavior posit that individuals act in accordance with the dominant norms for appropriate gendered behavior, even if they disagree with the gender norm (Ridgeway and Correll 2004, West and Zimmerman 1987). Thus, as mothers, women who think employment and family care are compatible may still feel compelled to perform time-intensive mothering behaviors, and experience distress if they perceive that others have a negative evaluation of their role performance. As employees, egalitarian-minded women may expect themselves to perform employment tasks to the standards of the broader labor market, and experience distress when family responsibilities hinder job performance.

The pressure women experience to perform to male employment standards and a traditional, time-intensive mothering model is supported by popular discourse. During the 1980s and 90s, the dramatic increase in employment among mothers with young children was accompanied by characterizations of employed mothers as ‘supermoms’ in scholarly and popular media alike, a characterization which highlighted the practical difficulties of combining family care and careers (Douglas and Michaels 2004, Gibbons 1993, Mallison 1986). Though hardly a solution, the myth of mothers’ “super powers” addressed both resource and cultural conflicts: the competing

demands of employment and childrearing on mothers' time, and the inherent contradiction of mothering ideals prizing large time investments with children and employment models prizing employees without domestic responsibilities. Yet underlying supermom narratives was the idea that women's attempts to "have it all" resulted in physical exhaustion and mental distress because the rise of women's employment was not accompanied by a comparable revolution in the division of household labor or workplace policies (Douglas and Michaels 2004, Hochschild 1989). Consistent with such reports, this analysis finds that viewing employment and motherhood as compatible tends to dampen the mental health benefits of employment.

The presented interpretations of results are consistent with research reporting that women who identify most strongly with employment are more likely to suffer negative mental health outcomes than women who identify most strongly with family roles. Reitzes and Mutron (2002) find that while placing importance on employment increases feelings of self-esteem, individuals who hold their worker-identity as their central identity have lower levels of self-esteem than those who do not consider their worker-identity central (Reitzes and Mutran 2002). To the extent that women who are supportive of women's employment are more likely to centrally identify with employment, Reitzes and Mutron's findings suggest that strongly supporting mothers' employment may have unexpected negative consequences for well-being.

Findings from this study are also consistent with evidence that women with more traditional gender attitudes are less bothered by an unfair division of household labor. Based on a sample of Utah women (N=96), Mannon and colleagues find that women who identify more strongly with family are more satisfied with the division of household labor, and subsequently experience less family-to-work conflict (Mannon, Minnotte and Brower 2007). Similarly Greenstein (1995) argues that women holding more egalitarian gender ideologies may perceive the division of

household labor with their partner as less fair, increasing marital conflict and the subsequent risk of divorce (Greenstein 1995).

I investigated several alternative explanations for why gender egalitarianism might dampen the beneficial effects of employment on depressive symptoms. Mothers who are least supportive of women's employment may disproportionately adjust their employment hours or select out of employment if they experience depressive symptoms. The presented analyses tested the role of employment hours in shaping the relationships among employment status, gender attitudes, and depressive symptoms by adding controls for working either part-time or long-hours. Results suggested that working part-time or long hours are not the primary mechanisms through which gender attitudes shape the benefit of employment on depressive symptoms. In supplementary analyses, I also tested the role of selection out of employment in shaping the employment, attitude, and depression relationship. I added control variables capturing if women changed employment statuses between the two time periods where depression is measured, 1994 and later when respondents are approximately 40 years old. Controls were also added for changes in employment status since the previous calendar year. These analyses did not indicate that selection out of the labor market is responsible for the observed association between support for mothers' employment and depressive symptoms among employed women.

The presented analysis has several limitations that would be useful to address in future research. As noted previously, this research cannot determine why employment is most beneficial for women with traditional gender attitudes. In addition to the interpretations presented, there are other possible mechanisms that were unable to be tested using the NLSY data. For example, it is unclear if attitudes vary the effect of employment by varying the amount of unpaid labor women perform, or if women with varying attitudes perform similar labor but

think about that labor differently. A second limitation of this analysis is that it only considers one dimension of women's well-being, change in depressive symptoms. The impact of gender attitudes on other dimensions of well-being, including self-esteem, mastery, or physical health may differ.

VII. CONCLUSION

This study builds upon two bodies of research, one finding that employment is typically beneficial for the well-being of women, and a second highlighting the negative health consequences of conflict between employment and family care. This research contributes to both literatures by identifying conditions under which employment is most likely to benefit mothers' mental health—in this case, when mothers' attitudes about employment and childrearing match the cultural norms dominating employment and family institutions. From one perspective, this study's finding that employment does not universally improve mental health among sampled mothers undermines existing research's conclusions that employment improves mothers' well-being. Yet from another, this study points to unrealized mental and physical health benefits from employment that mothers might enjoy if family and workplace practices aligned with the egalitarian attitudes that are commonly espoused, but less often practiced.

VIII. SUMMARY OF CHAPTER THREE

This study assesses how gender attitudes moderate the relationship between employment and changes in depressive symptoms using data from the National Longitudinal Survey of Youth 1979. Results indicate the positive effects of employment on mental health are greatest for women who are most skeptical that mothers can combine family care and employment. This

finding suggests that in light of women's disproportionate share of domestic responsibilities and limited employer supports for parents, skepticism over mothers' ability to "do it all" may mitigate the stress of work-family role strain and allow mothers with the most traditional gender attitudes to receive the greatest mental health gains from employment.

Figure 3.1: Predicted Depression Symptoms by Employment and Attitudes

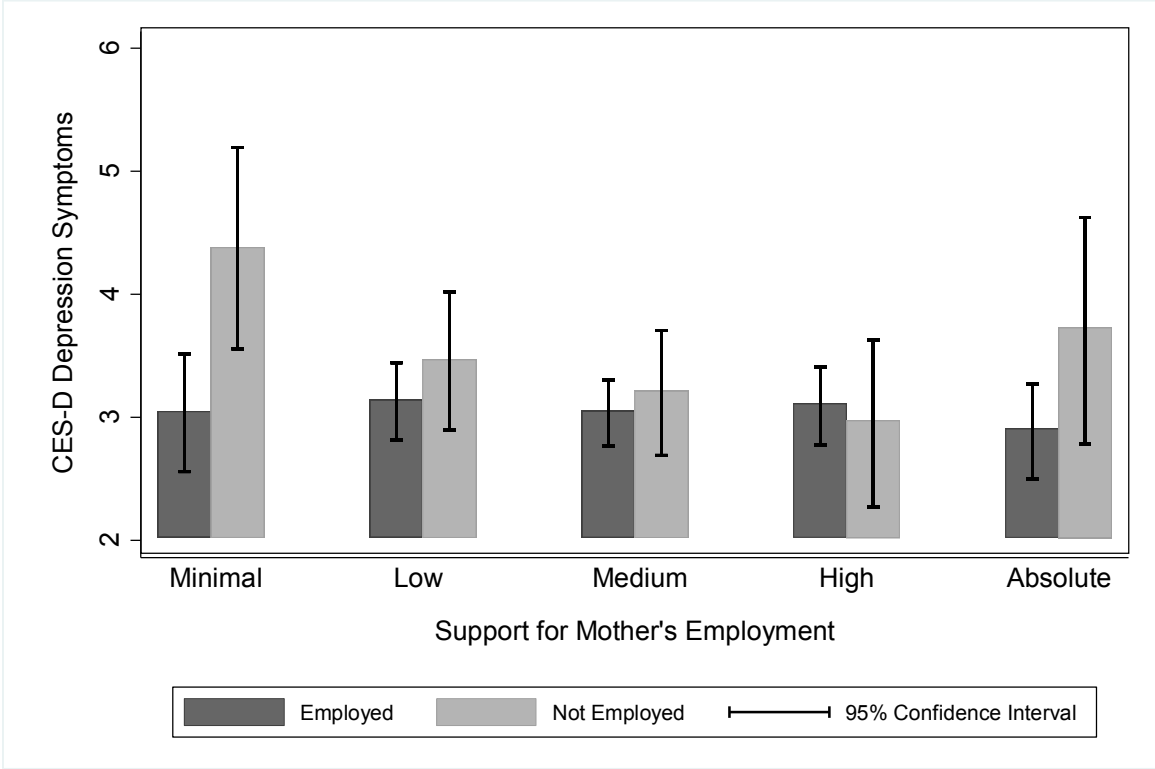


Table 3.1:**Sample Means for the NLSY 1979 Cohort at Age 40**

Variable	Mean	Standard Deviation
CES-D Depression Symptoms	3.621	4.296
Employed	0.753	0.437
Minimal Support (referent)	0.123	0.327
Low Support	0.239	0.432
Medium Support	0.302	0.480
High Support	0.204	0.411
Absolute Support	0.132	0.348
Black	0.289	0.454
Latino	0.207	0.405
Married	0.638	0.481
Divorced or Separated	0.260	0.439
Child Under 6	0.209	0.406
Less than High School (referent)	0.089	0.285
High School	0.413	0.492
Some College	0.277	0.447
College	0.221	0.415
Logged Household Income	10.384	2.015
Want a Job at Age 35	0.842	0.371
Prior CES-D Depression Symptoms	4.394	4.505
Self-Rated Health	2.382	1.019
Part-Time	0.152	0.359
Long Hours	0.135	0.341
N	3,000	

Table 3.2: Negative Binomial Regression of Depression Symptoms on Employment and Support for Mothers' Employment

	Model 1		Model 2		Model 3	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Employed	-0.124*	0.052	-0.363***	0.127	-0.384***	0.130
<u>Employed x Attitude</u>						
x Low Support			0.266	0.162	0.271	0.162
x Medium Support			0.321*	0.158	0.328*	0.159
x High Support			0.395*	0.185	0.400*	0.185
x Absolute Support			0.109	0.193	0.114	0.193
Minimal Support	(referent)					
Low Support	-0.090	0.076	-0.245	0.128	-0.245	0.128
Medium Support	-0.114	0.082	-0.328*	0.127	-0.327*	0.127
High Support	-0.128	0.075	-0.381*	0.156	-0.381*	0.156
Absolute Support	-0.120	0.089	-0.156	0.161	-0.155	0.161
Black	-0.015	0.054	-0.018	0.054	-0.017	0.054
Latino	-0.202***	0.058	-0.210***	0.058	-0.207***	0.058
Married	-0.130	0.080	-0.140	0.080	-0.140	0.080
Divorced or Separated	0.061	0.079	0.053	0.079	0.052	0.079
Child Under 6	0.049	0.054	0.054	0.054	0.052	0.054
Less than High School	(referent)					
High School	0.081	0.080	0.091	0.080	0.091	0.080
Some College	0.043	0.085	0.046	0.085	0.046	0.085
College	-0.084	0.093	-0.083	0.093	-0.086	0.093
Logged Household Income	-0.029*	0.014	-0.026	0.014	-0.026	0.015
Want a Job at Age 35	0.173	0.060	0.178***	0.060	0.178***	0.060
Prior Depression	0.067***	0.005	0.068***	0.005	0.068***	0.005
Self-Rated Health	0.284*	0.022	0.286***	0.022	0.287*	0.022
Part-Time					0.025	0.064
Long Hours					0.056	0.066
Intercept	0.592	0.179	0.689***	0.185	0.685***	0.186
Dispersion Parameter	0.981*	0.039	0.978*	0.039	0.977*	0.039

Notes: N= 3,000; * p<0.05, ** p<0.01, *** p<0.001.

CHAPTER FOUR:

BARGAINING BONUS OR BREADWINNING BURDEN?

RELATIVE EARNINGS, GENDER, PARENTHOOD AND MENTAL HEALTH

I. INTRODUCTION

In Chapter Three, results suggested that for women on average, employment is associated with fewer depressive symptoms. This finding supports Sieber's (1974) perspective that a greater number of social roles improves well-being (Sieber 1974). However, findings from Chapter Three provide less support for the perspective that employment enhances mothers' well-being by providing an additional identity (Thoits 1983). While scholars might expect that the identity associated with employment would improve mental health for women who view work and family roles as compatible, I did not find evidence that employment improves mental health for mothers with egalitarian gender attitudes. These results encourage further investigation into additional mechanisms through which employment may reduce symptoms of depression. Among married individuals, the gain in household bargaining power conferred by earnings may be one possible way that employment promotes mental health. In this chapter, I examine the relationship between relative spousal earnings and depressive symptoms, and whether that relationship is conditioned by gender and parental status.

Economic empowerment may be an important avenue through which employment improves mental health. In describing the benefits of additional social roles, Sieber (1974) posited that increasing access to resources (including financial capital) was one way that social roles could improve well-being. Research on health inequalities supports this possibility. Income is a key component in the socio-economic gradient in health and mortality (Elo 2009), and rates of

depression are lower among those with greater incomes (Andersen et al. 2009, Carter et al. 2009, Roxburgh 2009). At the macro-level, there is evidence that women's risk of depression is lower in states with greater female economic empowerment (Chen, Subramanian, Acevedo-Garcia and Kawachi 2005).

While most research on income and health focuses on variation across households, power structures within families also influence the distribution of resources (Curtis 1986). Given the tendency for married women to earn less than their husbands (Winkler, McBride and Andrews 2005, Winslow-Bowe 2006), better understandings of the association between intra-household income inequality and mental health may shed light on gender differences in depression. Contributions to household income have long been identified as a source of power within marriage (Blood and Wolfe 1960), and the division of power between husbands and wives impacts depression for both spouses (Mirowsky 1985). A body of research on marriage and the family examines the relevancy of spouses' relative contributions to household earnings for explaining a variety of patterns with implications for mental health, including the division of household labor, perceptions of equity, and marital stability and happiness (Brines and Joyner 1999, Glass and Fujimoto 1994, Rogers and DeBoer 2001). Additionally, research on developing countries has identified that children's health improves when mothers have greater control over household resources (Richards et al. 2012), suggesting control over household income may have implications for women's own health as well.

Shifts in the relative contributions of husbands and wives to household income in recent decades make research on the consequences of household earning distributions particularly timely. The mass increase in women's labor force participation during the last decades of the twentieth century increased the relative contributions of wives to household income (Sorenson

2004), making wives less economically dependent on their husbands than ever before. While a body of research has assessed the impact of women's employment on their physical and mental health (Carr 2002, Frech and Damaske 2012, Klumb and Lampert 2004, Ross, Mirowsky and Huber 1983, Ross and Mirowsky 1995, Usdansky et al. 2012), we know relatively little about the effect of women's increased contributions to household earnings on their well-being .

This study contributes to understandings on the relationships among income inequality, gender and depression by examining the link between married individuals' share of household earnings and mental health. Drawing on resource and bargaining perspectives, equity theory, and symbolic interaction perspectives on gender and parenting roles, the study identifies conditions under which contributions to household earnings impact depressive symptoms. By utilizing longitudinal data, the study is able to assess the association between depression and spousal earnings shares relative to individuals in other households, and test the robustness of the causal association by examining the effect of changes in spouses' earnings shares to changes in depressive symptoms.

II. LITERATURE REVIEW & THEORETICAL FRAMEWORK

Resource & Bargaining Perspectives

Though spouses' earnings might be expected to substitute for one another in promoting health, research cautions against the assumption that couples pool income (Lundberg, Pollak and Wales 1997, Treas 1993). Bargaining and resource perspectives posit that even if earnings are shared, control over economic resources confers greater decision-making power to spouses (Blood and Wolfe 1960, Lundberg and Pollak 1996, Lundberg, Pollak and Wales 1997). Accordingly, individuals with greater household decision-making power may have greater ability

to access healthcare services, to purchase amenities that improve health, and to arrange regular household activities in ways conducive to their own health and well-being.

Patterns of household spending and savings indicate that women's increased control over income has consequences for the apportionment of resources within families. In low and middle-income countries, women's control over household resources is linked to improved child health and greater access to healthcare services (Richards et al. 2012). This pattern extends to economically developed countries. Lundberg, Pollak and Wales (1997) found that increases in income controlled by women resulted in greater spending on children's goods in the United Kingdom. Among low-income U.S. families, Klawitter and Fletschner (2011) find that women and their families are more likely to hold bank accounts when women earn greater shares of household income.

The relevancy of bargaining and resource models for explaining well-being has been tested on marital quality, with varied findings. Rogers and DeBoer (2001) report that increases in wives' earnings improve marital happiness and subsequently decrease levels of depression, supporting the idea that increased bargaining power improves well-being. Other studies indicate the relevancy of the bargaining perspectives varies across economic contexts. Furdyna, Tucker and James (2008) find that women's marital happiness is generally highest among couples where wives earn the lowest share of household income, but that earning a high income share improves women's marital happiness when couples' economic need is great (Furdyna, Tucker and James 2008). In a similar vein, research on U.S. mother's health and divorce discourages the assumption that partners' earnings improve women's health. While access to greater resources has been cited as a mechanism through which marriage improves women's health (Roxburgh 2009), other work indicates that health differences between married and unmarried mothers do

not accrue over time, and that the negative mental and physical health effects of union dissolution are only short-lived (Meadows, McLanahan and Brooks-Gunn 2008).

The Equity Perspective

The equity perspective presents a second theoretical approach for understanding the role of relative spousal resources in shaping health and well-being. Equity theory maintains that partners do best when marital power is shared. As would be expected, the partner with less marital power experiences distress as their power declines (Mirowsky 1985, Walster, Walster and Berscheid 1978). Yet the equity model also maintains that imbalances of power are distressing to the partner with greater power. When one partner has the ability to exploit another, the exploiting partner may feel guilty for treating their spouse unfairly, feel badly for violating social norms of fairness, and or receive worse treatment from their spouse as retaliation for unfair treatment. Though the equity model has received less attention than resource and bargaining perspectives for explaining trends in marriage, there is evidence that unequal power distributions have mental health consequences. Using spouses' reports of the level of equity in their relationship, Mirowsky (1985) found evidence of a U-shaped relationship between marital power and depression, with depression generally being lowest when power is shared.

Gender

Gender variations in the meanings ascribed to earnings may produce differences in the effects of earnings shares on mental health. Historically, the division of paid employment from unpaid reproductive labor encouraged male breadwinning and female homemaking (Padavic and Reskin 2002). Accordingly, there is evidence that the meaning ascribed to wage-earning continues to

vary by gender. For example, Kroska (2008) examined the meanings husbands, wives, and cohabiting partners attached to their wage-earnings, finding that husbands view their wage-earning more positively than their wives view their own earning activities. Others have pointed to gender attitudes as influencing whether women view their wage-earning as family breadwinning. Potuchek (1992) found that women with egalitarian gender attitudes were more likely to describe their employment as breadwinning than women with traditional gender ideals. The saliency of gender for varying the meaning individuals attach to earnings encourages attention to gender differences in the effect of earning shares on mental health.

It is also possible that earnings shares will influence women and men's mental health differently because the link between earnings shares and marital power varies by gender. Tichenor (1999) observed that in households where women were primary breadwinners, women's greater economic contributions failed to grant them greater marital power than their husbands. Similarly, Hochschild (1989) argued that among dual-earner couples "economies of gratitude," where spouse's sense of their contribution to marriage was based on their appreciation of their partner's behavior, were more salient for decision-making than spouses' economic contributions to their family.

Parenthood

The saliency of gender for varying the relationship between earnings share and mental health may depend upon whether individuals are parents. Normative gender expectations for women to perform unpaid care-giving labor continue to be reflected in much of the organization of family life, particularly women's greater performance of childrearing and household labor (Bianchi et al. 2012, Padavic and Reskin 2002, Schneider 2012). Though men have made modest gains in

their total time with children, these increases occurred alongside increases in mothers' time with children, so that mothers still spend more time caring for children than do men, regardless of employment status (Bianchi, Robinson and Milkie 2002). Accordingly, women report higher rates of work-family conflict compared to men, particularly when caring for young children (Keene and Quadagno 2004, Milkie and Peltola 1999), and report greater feelings of distress when work demands spillover into family time (Glavin, Schieman and Reid 2011). Given the associations among work-family conflict, stress, and depression (Schieman, McBrier and Gundy 2003), any mental health gains mothers might incur from greater contributions to earnings shares may be diminished by work-family conflict.

Additionally, parenthood may intensify gender differences in the meaning of breadwinning, and its connection to mental health. As Townsend (2002) reports, fathers conceptualize breadwinning, fatherhood, and marriage as a "package deal," where the activities associated with wage-earning improve men's performance in their fatherhood role. In contrast, mothering and wage-earning have been described as ideologically incompatible (Hays 1996). Though actual practices vary, scholars assert that pressure to perform intensive mothering, where mothers devote full attention to the direct care-giving of children, remains strong (Arendell 2000, Hays 1996, Williams 2000). Given that wage-earning activities reduce the time women have available to care for children, gender differences in the effect of spouses' earnings shares may be greater for parents than for non-parents.

III. HYPOTHESES

Do resource and bargaining perspectives explain the relationship between relative spousal earnings and mental health? Increases in earnings shares may decrease depressive symptoms by

increasing one's control over how money is spent and by increasing bargaining power at home more generally. This general increase in bargaining power is expected to grant individuals greater leverage in organizing daily family routines in ways conducive to their own well-being.

H1: Greater shares of household earnings will decrease depressive symptoms.

Normative gender expectations prioritizing men's paid employment and family breadwinning (Padavic and Reskin 2002, Townsend 2002) suggest that earnings shares will be salient for men's mental health. In contrast, gender norms for women to specialize in unpaid domestic labor (Padavic and Reskin 2002) may reduce the likelihood that greater earnings shares result in improved well-being for women. Accordingly, greater earnings shares are expected to be associated with improved mental health for men, but are not expected to have an effect on women's depressive symptoms

H2: Greater household earnings shares will decrease depressive symptoms for men more than for women.

Parenthood has different role meanings and responsibilities for women compared to men. Though fatherhood ideals emphasize breadwinning (Townsend 2002), motherhood ideals emphasize the performance of unpaid labor and direct care-giving (Hays 1996). The transition to parenthood is associated with an increase in the gendered division of paid and unpaid labor (Sanchez and Thomson 1997), and women's greater distress from conflict between work and family responsibilities (Glavin, Schieman and Reid 2011) might offset earnings' salubrious

effects. Thus, parenthood may reduce benefits of greater earnings shares for women, and amplify the benefits of greater earnings shares for men.

H3: Mothers will experience a lesser benefit of earnings shares compared to childless women.

H4: Fathers will experience a greater benefit of earnings shares compared to childless men.

Finally, do the effects of relative earnings shares vary depending on whether earnings gains shift individuals towards or away from earning the same amount as their spouse? Equity theory predicts that increases in relative earnings will benefit those who earn less than their spouse, but will have no benefits for those who out-earn their partner (Walster, Walster and Berscheid 1978).

H5: Greater earnings shares will decrease depressive symptoms among those earning less than their spouse, but will not benefit those earning more than their spouse.

IV. DATA & METHODS

Sample

The sample for this study is drawn from the 1992 to 2006 waves of National Longitudinal Survey of Youth, 1979 (NLSY79). Because the study examines the effect of earnings relative to spouse's earnings, I limit the study to respondents who are married at the time of interview. I include observations collected during the 1992 and 1994 survey rounds, and in the Age 40 Health Module, administered as respondents reached 40 years of age (1998-2006). Doing so

captures individuals between the ages of 27 and 40, generating a mean sample age for all observations of 35 years old. Limiting the observation period to when respondents are age 40 and younger captures the majority of individuals in the NLSY survey who ultimately become parents during time periods when they still have at least one child under the age of eighteen. This sampling frame allows the study to better capture the effects of childrearing responsibilities in moderating the impact of earnings shares on mental health.

Measures

Share of household earnings is measured by dividing the difference between respondents' and their spouses' earnings by the sum of both spouses' earnings⁷. The resulting measure ranges from -1 to 1, where 1 indicates that survey respondents earn all of the couples' earned income, while -1 indicates that the respondent is entirely dependent on their spouse's earned income. Couples where earnings are equal have a share measure of zero. Others have used this method because it facilitates capturing effects that differ depending on whether spouses earn more or less than their partner (Brines 1994, Sorenson 2004).

I include three control measures of absolute earnings: respondents' own earnings, their spouses' earnings, and the total household income.⁸ All measures are for the previous calendar

⁷ I also investigated whether income from self-employment may alter results for earnings shares. Adding income from farms and businesses to earnings from employment in the calculations for relative spousal earnings shares and absolute earnings measures did not change substantive conclusions. Given the dissertation's goal of understanding the mechanisms through which employment impacts mental health, I present results that calculate earnings shares using employment earnings only.

⁸ Given concerns about definitional dependency and collinearity among the measure of earnings share and respondents' and spouses' absolute earnings, in supplementary analyses I excluded measures of respondents' own earnings and their spouses' earnings. Removing these variables did not alter the significance or direction of the association between greater earnings shares and

year. Total household income, and respondents' and their spouses' earnings are logged in order to address skew and reduce the possibility that results are driven by those with outlying earnings or income. The study also controls for respondents' employment status at the time of interview given employments' association with improved mental health. I control for respondents' and their spouses' average weekly hours of paid work per week during the previous calendar year given their impact on relative spousal earnings and well-being (Moen and Yu 2000).

Methods

I first pool observations from the three time periods and examine the bivariate relationship between earnings shares and depression using loess graphs. Loess graphs are useful for exploratory data analysis when there are potentially non-linear relationships between variables because they allow the slope of the line to change across the range of variable values. Next, I examine the association of earnings shares with depressive symptoms using negative binomial regression on the pooled time-point sample, investigating differences by gender using interaction terms for men and earnings share, with women as the referent group. I then test for differences in the effect of earnings shares among childless women, childless men, mothers, and fathers by using three-way interaction terms between parenthood, gender and earnings shares, with women without children as the referent group.

I also take advantage of the longitudinal data available in the NLSY to examine the effect of changes in earnings shares on changes in depressive symptoms using fixed-effects models.

Fixed-effects models measure changes across two or more observations for the same person, and control for all unit-characteristics that do not vary over time. In doing so, fixed effects models

depressive symptoms, nor the differences by gender and parenthood, and supported the substantive conclusions presented in this study.

capitalize on longitudinal panel data's strength in allowing researchers to control for person-specific unobservable characteristics. Halaby (2005) argues that fixed effects models are underutilized in sociological research, and offer an advantage over pooled models because of this control for unobserved time-invariant individual effects that may bias random effect results (Halaby 2004).⁹ I present findings from fixed effects Poisson models due to concerns about the reliability of fixed-effects negative binomial models (Allison and Waterman 2002).¹⁰ Though the outcome variable of CES-D depressive symptoms is skewed and over-dispersed, unconditional fixed effect negative binomial models did not indicate evidence of over-dispersion, suggesting that the use of Poisson fixed effect models is acceptable.¹¹ Unconditional negative binomial fixed effects models indicated similar results as those obtained using Poisson fixed effects models.

For all models, I divide the sample into two groups: observations where individuals earn less than their spouse, and observations where individuals earn the same or more than their spouse. This decision is guided by equity theory and a symbolic interaction perspective on gender roles. For those earning less than their spouse, increases in earnings shares move towards equity, hypothesized to maximize well-being. For those earning more than their spouse, increases in earnings shares move away from equity and may detract from well-being. Thus, equity theory

⁹ For this study, Hausman tests encouraged the use of fixed-effect over random-effect models. Notably, a weakness of fixed effects models is that they are unable to estimate the effect of covariates for cases where there is no change in depression symptoms over time. In 19% of observations in my sample, there is no change in depression symptoms between the current and prior wave.

¹⁰ Conditional negative binomial fixed effects estimates implemented using the method proposed by Hausman, Hall, and Griliches (1984), and implemented in many statistical software programs are not true fixed effects estimates as they do not control for time-invariant covariates (Allison and Waterman 2002).

¹¹ I implemented an unconditional negative binomial fixed effects model in SAS using dummy-variables for each individual in the sample, as outlined by Allison and Waterman (2002).

implies different effects of having higher earnings shares depending on whether individuals earn less or more than their spouse. Gender norms may also generate different effects for those earning more or less than their spouse. Gendered breadwinning ideals encourage men to earn the majority of couples' income, while women are secondary earners. Accordingly, men who earn less than their wives and women who earn the same or more than their husbands deviate from gender norms, which may have negative consequences for well-being. In contrast, earnings shares may differently impact men earning more than their wives or women earning less than their husbands because their earnings shares are in alignment with the most common gendered breadwinning patterns (Winkler, McBride and Andrews 2005, Winslow-Bowe 2006).

A high proportion of respondents were missing data for their own earnings (16.7 percent), their spouses' earnings (22.4 percent), and total household income (15.2 percent). Of those with missing measures, 29 percent reported their own earnings, 28 percent reported their spouses' earnings, and 56 percent reported total household income in the prior NLSY survey wave. When available I replace missing income and earnings values with the values reported in the prior survey wave. A dummy variable flagging if own or spouses' earnings are measured using prior observed values is included in each model.¹²

Substituting prior reported own and spousal earnings for missing earnings values allows me to reduce the potential bias posed by missing earnings data, while also investigating whether missing income data is linked to depression. I use the last observed value substitution method rather than multiple imputation for addressing missing data for several reasons. First, as described in Chapter Two, splitting the sample based on an imputed value of earnings shares is

¹² Flags for substitution of missing total household income were not significant, so were dropped from the presented models. I also assessed results using mean substitution for those that did not report an earnings value in the previous survey wave. Results led to similar substantive conclusions.

likely to bias results, as might including combinations of imputed transformed variables and interaction terms in estimation models. Secondly, it is possible that failure to report spouse's earnings is a reflection of power imbalances between spouses. Results from the fixed effects models, presented in Table 4.4, support this hypothesis. Among those earning less than their spouse, not reporting spousal earnings increases the risk of depression. Among those earning equal or more than their spouse, failure to report spousal earnings reduces symptoms of depression. Notably, for those earning less than their spouse (the group for whom earnings shares are significant), cross-sectional results from random effects models incorporating socio-demographic controls did not indicate that failure to report own or spouses' earnings is linked to depression.

V. RESULTS

Figure 4.1 presents loess curve graphs of the bivariate relationship between earnings shares and depressive symptoms for men and women. For men, the curves indicate a steep decline in depression symptoms as earnings shares increase, up until earning shares reach approximately 0.5 (one-quarter of couples' earnings). After reaching the point of earning one-quarter of couples' earnings, the association between earnings shares and depressive symptoms continues to be negative, but the slope flattens considerably. For women, the association between relative earnings and depression is relatively flat, with a slight increase after women begin earning the same amount as their spouse.

Figures 4.2 and 4.3 separate out parents from childless men and women. Fathers and childless men both have steep declines in depressive symptoms with greater earnings shares up until earnings shares surpass 0.5. For mothers, the slope between earnings shares and depressive

symptoms is generally flat until earnings shares reach zero (when wives earn approximately half of couples' earnings), at which point depression symptoms increase modestly with earnings shares. Among childless women, depressive symptoms decline with greater earnings shares up until wives earn the same amount as their spouse, at which point greater earnings shares are associated with increased depression symptoms. The observed bivariate relationships support the theoretically-motivated decision to examine the association between earnings shares and depressive symptoms separately for those earning less than half of couples' earnings and for those earning the same or more than their spouse, and to investigate the role of gender and parenthood in shaping the relationship between earnings shares and depressive symptoms.

Table 4.2 presents regression results for individuals earning less than their spouse. As indicated in Model 1, greater earnings shares are associated with fewer depressive symptoms in the absence of control variables. Model 2 investigates gender differences in the bivariate relationship by adding an interaction term for being male and earnings shares. For women, the referent group, there is no evidence that greater earnings shares decrease depressive symptoms. The coefficient for "share x men" is negative and significant, indicating that earnings shares reduce depressive symptoms for men more than for women. The effect of earnings shares for men is calculated by adding the effect of the interaction term for "share x men" (-.286) to the effect of earnings shares for women (.020). For men, in the absence of control variables, earning half of couples' total earnings compared to being entirely dependent on their spouse results in a statistically significant decrease of .266 logged depression symptoms per week. Thus, in the absence of control variables for parenthood and socio-demographic characteristics, I find support for the first hypothesis, that greater earnings shares are associated with fewer depressive

symptoms, and for the second hypothesis, that earnings shares are more beneficial for men than for women.

Model 3 adds controls for logged total household income and for the absolute earnings of individuals and their spouse for the previous calendar year, as well as employment status during the week of interview, and the average number of hours of paid work per week for respondents and their spouse. With these controls, earnings shares reduce depressive symptoms for women, and there is no evidence of gender differences in their effects. Model 4 adds remaining socio-demographic covariates, which render the effect of earnings shares on women's depression non-significant, with no evidence of significant differences in the effects of earnings shares for men.

In Model 5, I separate out the effects of earnings share by both gender and parental status by adding a three-way interaction term for earnings share, being a man and having children (representing the difference in earnings share's effect for fathers compared to childless women), and a two-way interaction term for earnings share and being a man (representing the difference in the effect of earnings share for men without children compared to childless women).

Additionally, a two-way interaction term for the effect of being a parent and male is added, as three-way interaction terms require addition of relevant two-way interaction terms to the model.

With the addition of the three-way interaction term, the effect of the "earnings share" variable represents the effect of earnings shares on depression for women without children. For childless women, a one unit increase in earnings shares is associated with a reduction of 0.484 logged depression symptoms. The interaction term "share x parent" indicates there is a significant difference in the effect of earnings shares for childless women than for mothers. Thus, I find support for the third hypothesis, which posits that greater earnings shares will have a stronger effect on mental health for childless women than for mothers. The effect of earnings shares on

mothers' depression is calculated by adding the coefficient for earnings shares to the coefficient for the interaction term: $-0.484 + 0.468 = -0.016$. Importantly, when Model 5 is run with mothers rather than childless women as the referent group, the effect for mothers is not significant. Thus, while increased earnings shares improve mental health for childless women earning less than their spouse, there is no evidence that the beneficial effects of greater earnings for mental health extend to mothers.

The coefficient for "share x men" in Model 5 represents the difference in the effect for men without children relative to women without children. There is no evidence for a gender difference in the effect of earnings shares on depression for childless men and women. There also is no evidence that the effect for fathers is different from the effect for childless women, as indicated by the non-significant coefficient for the three-way-interaction "share x men x parent." Switching the referent group in Model 5 to fathers and childless men indicates that the effects of greater earnings shares are not significant for either group of men, nor is there a significant interaction term for earnings share and parental status.¹³ Accordingly, I do not find support in the random effects model for the fourth hypothesis positing a difference in the effect of earnings shares for fathers compared to childless men.

Table 4.3 presents results from random effects negative binomial regression models for those earning the same or more money than their spouse. Model 1 indicates a significant and negative bivariate relationship between greater earnings shares and decreased depressive symptoms. Model 2 separates out the effect of earnings shares by gender, indicating significant gender differences in the bivariate relationship between earnings share and depression. For men, greater

¹³ The lack of significant effects for men may be due to the smaller sample size of men who earn less than their spouse. Notably, for fathers, the effect of earnings shares is significant with the addition of a control for weeks unemployed in the past calendar year to Model 5.

earnings shares are associated with fewer depressive symptoms, but there is not a significant association between earnings shares and depression among women. As indicated in Models 3 and 4 there is no evidence of an effect of earnings shares on women's depression once covariates are added, nor is there evidence of gender differences in the effect of earnings shares.

Model 5 in Table 4.2 separates the effects of earnings shares by gender and parental status. For the referent group, childless women, the effect of earnings shares is not significant. All earnings share interaction terms are also non-significant, indicating that the effects of earnings shares are not statistically different for childless men, fathers, or mothers compared to childless women. Changing the referent group for Model 5 to fathers, childless men, and mothers similarly produced non-significant effects of earnings shares. In sum, findings support the fifth hypothesis, as there is no evidence of an effect of earnings shares for any group earning the same or more than their spouse once socio-demographic controls are included.

The effects of personal and spousal earnings differ for those earning less than their spouse and those earning the same or more than their spouse. For those earning less than their spouse, spouses' earnings improve mental health. For those earning the same or more than their spouse, own earnings are salient for well-being. Family income is not significant for either group.

The effects of gender, employment, education, and age are similar for the group earning less than their spouse and the group earning the same or more than their spouse. All men have fewer depressive symptoms compared to women, as indicated in Model 4 for those earning less than their spouse and those earning the same or more than their spouse. In Model 5, the interaction term for "men x parent" is not significant for either group, indicating the effect of parenthood does not vary by gender, and that the effect of gender does not vary by parental status. The social role of employment improves mental health, regardless of whether one earns more or less than

their spouse. An additional year of education reduces depressive symptoms, as does being a year older. Among those earning more than their spouse, being black is associated with an increase in depressive symptoms.

Results for the final random effects models (Model 5) are presented graphically in Figures 4.4-4.7. Figure 4.4 shows predicted depressive symptoms by earnings share for fathers and mothers earning less than their spouse. Among parents, gender varies the association between earnings shares and depressive symptoms. Figure 4.5 illustrates predicted depressive symptoms by earnings share for men and women without children earning less than their spouse. The slope is negative and similar for both childless men and women, reflecting the finding of no gender difference in the effects of earnings shares on depressive symptoms for those without children. Figures 4.6 and 4.7 illustrate effects of earnings shares for those earning the same or more than their spouse. Slopes for childless women and mothers are similar, as are the slopes for childless men and fathers, reflecting the finding of no differences by parental status.

In Table 4.4, I present results from fixed-effects models that control for covariates included in Model 5.¹⁴ Findings from fixed effects models support the results of cross-sectional estimates. Among those earning less than their spouse, fixed effects estimates provide support for cross-sectional findings that increases in earnings shares improve well-being for childless women but have a different effect on women with children. Among those earning the same or more than their spouse, there is no evidence of that changes in relative spousal earnings impact depressive symptoms, nor is there evidence of gender or parental differences.

Results from fixed effect models for those who earn less than their spouse are discussed below. For women without children, the referent group, increases in earnings shares are

¹⁴ Time-invariant covariates, such as gender and race, are not included in the model as the fixed effects regression inherently controls for time-invariant characteristics.

associated with a decrease in depressive symptoms. Shifting from an earnings share of -1 (no contribution to couples' earnings) to an earnings share of 0 (contributing to half of couples' earnings), is associated with a decrease of 0.342 logged depressive symptoms per week.

Similar to cross-sectional estimates, fixed effects models also indicate evidence of a difference in the effect of earnings shares for childless women and mothers, further supporting the third hypothesis. The interaction term for earning share and parent is positive and significant. The sum of the effect for childless women and the interaction effect for "Earnings Share x Parent" is 0.254, indicating more depressive symptoms as mothers' earnings shares increase. Though the effects of relative earnings shares were not significant for mothers in the random effects models, fixed effects models indicate that changes in earnings shares have a statistically significant effect on mothers earning less than their spouse.

Fixed effects models also indicate differences in the effects of changes in earnings shares for fathers and childless men compared to childless women earning less than their spouse. The effect of changes in earnings shares for childless men is calculated by adding the effect for the referent group of childless women (-0.342) to the coefficient for the interaction term "Earnings Share x Men" (1.501), resulting in a positive effect of 1.159. For fathers, the effect of earnings shares is calculated by adding all interaction terms to the effect of earnings shares for childless women, resulting in a negative effect of -0.949. Switching fathers and childfree men to the referent group in the fixed effects model indicated the effects for fathers and childfree men are both significant, and that the effects for fathers and men without children are significantly different from each other. Thus, fixed effects models support for the fourth hypothesis that earnings shares will be more protective for fathers than for childless men.

Results for the effects of changes in respondents' and spouses' absolute earnings also differ from the results of random effect models. Though the effect of respondents' own logged earnings was not significant among those earning less than their spouse in random effects models, changes in own earnings reduce depressive symptoms among those earning less than their spouse. Though spouses' income did not impact depressive symptoms among those earning the same or more than their spouse when cross-sectional differences were measured, changes towards greater absolute spousal earnings are associated with a decrease in depressive symptoms among those earning the same or more than their spouse.

The effect of changes in employment status and age are similar to cross-sectional estimates of the effect of employment status and age. Moving into employment decreases depression symptoms for those earning less than their spouse and those earning the same or more than their spouse. Growing older also decreases depressive symptoms. While there was no evidence of a gender difference in the effect of parenthood from cross-sectional estimates, there is evidence that becoming a parent is associated with fewer depressive symptoms for men than for women when individuals earn less than their spouse. This difference in findings between the random and fixed effects models is likely due to fixed effects' measurement of changes in parental status rather than of being a parent more generally.

While the fixed effects models are valuable for controlling for unobservable characteristics that do not vary with time, the necessity for each individual to contribute two or more observations in order to have changes measured limits the generalizability of results. In order to contribute to the estimated effect of changes in earnings, respondents must be married for two or more observation periods, and have earnings that remain either lower than, or equal to or greater than their spouses' at two or more observations. Accordingly, the presented results do not

capture effects of changes in earnings shares for those whose changes in earnings shares result in shifting whether they earn more than or less than their spouse.

I investigated the possibility that dropping those whose earnings share changes result in crossing the line between earning more or less than one's spouse might alter results. In supplementary analyses, I sampled those whose earnings shares were below 0.2 (earning less than sixty percent of couples' total earnings) at all observations and earned less than their spouse during at least one observation period. Results were similar to those from the more restricted samples with respect to the negative effect of changes in earnings shares on depression among fathers and women without children, and the statistically significant differences in earnings shares by gender and parental status. However, the positive effects on changes in earnings shares for increasing depression among childless men and mothers were no longer significant. This lack of significance for changes in earnings share on changes in depression in the broader sample of mothers and childless men encourages caution in generalizing the presented fixed effects results, particularly when the findings depart from those found in random effects models.

VI. DISCUSSION

Presented results support the hypothesis that higher relative spousal earnings decrease depressive symptoms, but indicate that the benefit of greater earnings shares only apply to men and childless women when they earn less than their spouse. In other words, increased earnings shares reduce depression when greater earnings shares move towards a more equitable distribution of household earnings. Once individuals out-earn their spouse, shifts in earnings shares do not appear to impact mental health. To the extent that earnings shares increase power within relationships, the study's findings support the equity perspective that individuals benefit

when marital power is shared. The finding aligns with existing research on the relationship between marital power and depression (Mirowsky 1985) and research finding that marital power decreases stress hormones when marital conflict occurs (Loving et al. 2004).

This research contributes to research on economic empowerment and women's well-being by indicating that even after controlling for employment status and absolute earnings, increases in shares of household earnings improves the mental health of childless women. The mental health improvements associated with greater spousal earnings shares for childless women are consistent with macro-level research indicating that greater economic empowerment improves women's health (Chen et al. 2005, Schnittker 2007). To date, most of the research on individual women's economic empowerment and well-being centers on the effects of employment or income, particularly in the U.S. (Arber 1991) (see for example Frech and Damaske 2012, Klumb and Lampert 2004, Ross and Mirowsky 1995, Roxburgh 2009). Findings from this study encourage researchers to look more closely at intra-household resource divisions when considering the link between income inequality, women's economic empowerment and well-being.

The study's other major finding is that parenthood and gender work together to differentiate the effects of earnings shares on mental health. Cross-sectional analyses indicate no statistically significant gender differences for the effects of earnings shares on depression for childless men and women. Rather, parenthood differentiates the effect of earnings shares within women. This finding is in line with research positing that work and family role conflict is particularly acute for women (Glavin, Schieman and Reid 2011). The cultural contradictions between mothers' wage-earning and childrearing may also encourage mothers to view their wage-earning activities as detracting from their role performance as a mother (Hays 1996). Thus, any gains in mental health

mothers might experience from earnings shares may be offset by the practical and ideological challenges of managing employment and family care.

Fixed effects analyses of changes in earnings shares and depression suggest that the moderating effect of parenthood on earnings shares applies to men as well as women, but with opposite effects. Though mothers experience a decrease in the benefits of greater earnings shares on mental health relative to childless women, increases in earnings share are associated with an additional decrease in depressive symptoms for fathers relative to men and women without children. This finding reflects research characterizing fatherhood, marriage, and employment as a “package deal,” where wage-earning is an essential component of fulfilling fatherhood responsibilities (Townsend 2002). The cultural value placed on male breadwinning is also evident in the wage premium enjoyed by fathers (Correll, Benard and Paik 2007). This analysis suggests that in addition to receiving a wage bonus for fatherhood, fathers also benefit from greater health returns from earnings.

Fixed effects models are presented in the analysis to test the causal claim that greater earnings shares reduce depressive symptoms. Findings from fixed effects models support those of cross-sectional estimates that earnings shares reduce depression for childless women earning less than their spouse, but that the effect is different for mothers compared to women without children. However, fixed-effects models cannot estimate the effect of earnings shares on depressive symptoms for those who do not experience changes in earnings shares or depression, and cross-sectional analyses did not find evidence of greater mental health returns to increased earnings shares for fathers. The likelihood of large changes in earnings shares to be accompanied by upheavals in family life, for example a job loss, new baby, or residential relocation, suggests that changes in spouses’ relative earnings may have a considerably different impact on mental health

than cross-sectional differences in relative spousal earnings. Thus, findings of a greater effect of spousal earnings for fathers' mental health should be interpreted with caution, as the results only apply to individuals who experience both a change in earnings shares and a change in depressive symptoms.

VII. CONCLUSION

The presented analysis employs both pooled cross-sectional and fixed effects models to estimate the effect of relative spousal earnings shares on depression symptoms and of changes in spousal earnings shares on changes in depressive symptoms. Researchers studying health and employment, and income inequality and health, have stressed the importance of controlling for prior well-being when estimating the effects of employment (Babones 2008, Klumb and Lampert 2004, Ross and Mirowsky 1995). The fixed effects model's measurement of changes in covariates goes beyond controlling for prior depression symptoms alone by also controlling for prior earnings shares and all unmeasured heterogeneity in stable characteristics across individuals.

This study makes a contribution to our understanding of the mechanisms through which employment impacts women's mental health by indicating that the division of earnings within households is associated with improvements in mental health of women without children. The finding encourages future research on income inequality and health to examine the division of resources within as well as across households. Secondly, results support an equity perspective on marital power and well-being, highlighting earnings shares' non-linear effects on mental health. Finally, the study contributes to research on gender differences in employment by identifying parenthood as a key status characteristic that makes gender salient for differentiating the effect of

relative spousal earnings. Much of previous research testing bargaining models control for gender, parental status, or both separately but do not control for the interaction between the two. Findings from this study encourage researchers to identify motherhood, rather than gender alone, as a unique status that influences household bargaining processes and well-being.

VIII. SUMMARY OF CHAPTER FOUR:

Though household income is a key explanatory component in the socioeconomic gradient in health and mortality, it is unclear how relative earnings within households impact mental health. Using data from the National Longitudinal Survey of Youth 1979, this study tests the relevancy of household bargaining, equity theory, and symbolic interaction perspectives on gender and parenthood for understanding the relationship between spouses' relative earnings and depression. Results indicate that greater shares of earnings are associated with fewer depressive symptoms among childless women who earn less than their spouse. However, the beneficial effect of greater earnings shares does not extend to mothers or those who earn more than their spouse. These findings highlight the roles of equity and gender display in determining when increases in relative spousal earnings have consequences for women's mental health, and point to parenthood as a status that makes gender salient for differentiating the effect of earnings shares on men's and women's mental health.

Figure 4.1: Observed Depression by Earnings Share

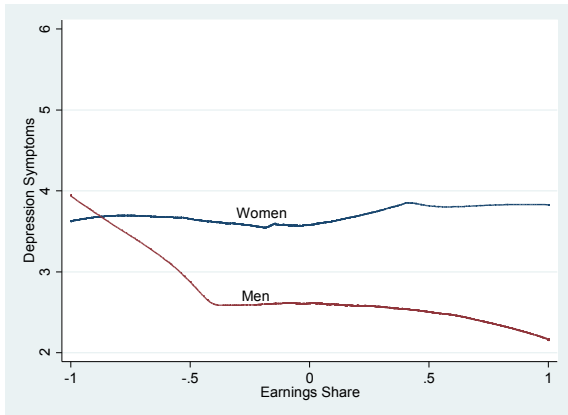


Figure 4.2: Observed Depression by Earnings Share: Parents

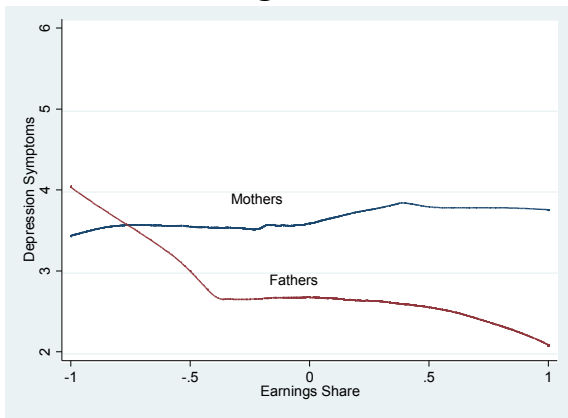


Figure 4.3: Observed Depression by Earnings Share: Non-Parents



Figures 4.4-4.5: Predicted Depression when Earnings Share is Less Than Spouse's Earnings Share

Figure 4.4: Parents

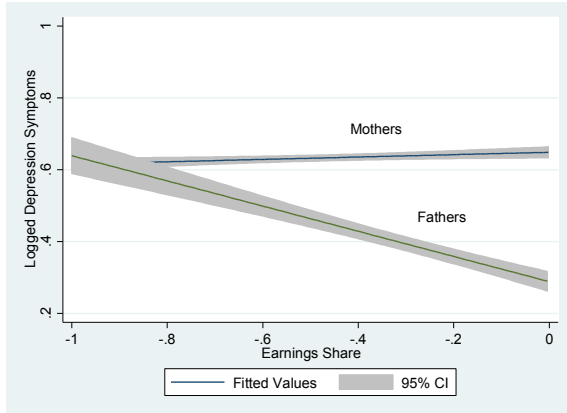
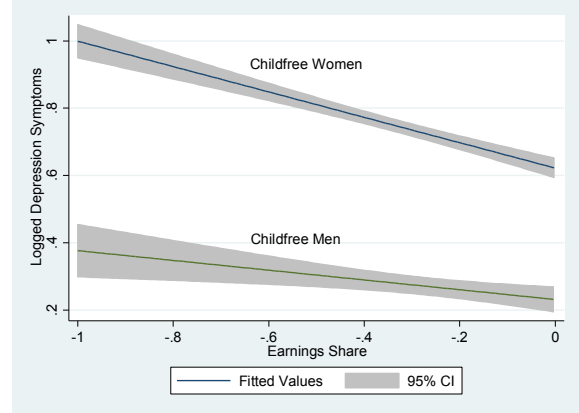


Figure 4.5: Childfree Men & Women



Figures 4.6-4.7: Predicted Depression when Earnings Share is Equal to or Greater Than Spouse's Earnings Share

Figure 4.6: Parents

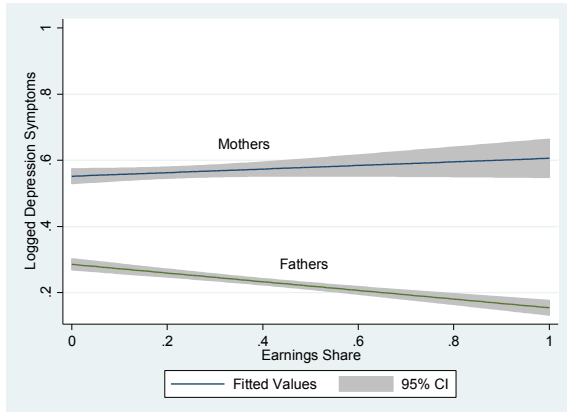


Figure 4.7: Childfree Men & Women

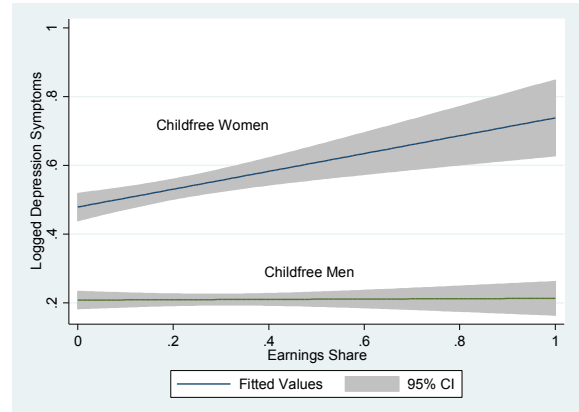


Table 4.1: Sample Means for Married Respondents in the NLSY 1979 Cohort

Variable	<u>Earnings Less Than Spouse's Earnings</u>		<u>Earnings Equal to or Greater Than Spouse's Earnings</u>	
	Mean	St. Dev.	Mean	St. Dev.
CES-D Depression Symptoms	3.438	3.182	2.801	3.271
Earnings Share	-0.421	0.310	0.388	0.311
Men	0.195	0.397	0.743	0.437
Parent	0.815	0.388	0.790	0.407
Family Income	73,566	105,012	72,457	97,688
Respondent's Earnings	17,955	16,955	41,281	32,575
Spouse's Earnings	42,830	35,570	18,289	14,607
Employed	0.809	0.393	0.954	0.210
Paid Work Hrs. Week	34.409	16.140	45.538	12.185
Spouse's Paid Work Hrs. Week	44.133	10.859	35.979	13.113
Education	13.379	2.369	13.553	2.533
Age	35.158	4.601	35.270	4.706
Black	0.175	0.380	0.187	0.390
Latino	0.187	0.390	0.190	0.392
Missing Respondent's Earnings	0.074	0.261	0.027	0.162
Missing Spouse's Earnings	0.054	0.226	0.086	0.281
N	5,207		5,580	

Table 4.2: Effect of Earnings Share when Earnings Share is Less Than Spouse's Earnings Share

	<u>Model 1</u>		<u>Model 2</u>		<u>Model 3</u>		<u>Model 4</u>		<u>Model 5</u>	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Earnings Share	-0.091	0.050	0.020	0.055	-0.170*	0.086	-0.088	0.090	-0.484**	0.161
Earnings Share x Parent									0.468**	0.164
Earnings Share x Men			-0.286*	0.137	-0.08	0.143	-0.174	0.150	0.373	0.326
Earnings Share x Men x Parent									-0.629	0.362
Men			-0.380**	0.062	-0.324**	0.064	-0.368**	0.066	-0.351**	0.127
Parent							-0.083	0.043	0.027	0.076
Parent x Men									0.004	0.146
Respondent's Earnings, Logged					0.015	0.011	-0.004	0.012	-0.005	0.012
Spouse's Earnings, Logged					-0.293**	0.036	-0.198**	0.041	-0.193**	0.040
Family Income, Logged					-0.013	0.031	0.006	0.033	0.001	0.032
Employed					-0.195**	0.043	-0.168**	0.043	-0.168**	0.043
Paid Work Hrs. Week					0.002	0.001	0.002	0.001	0.001	0.001
Spouse's Paid Work Hrs. Week					0.003	0.001	0.002	0.001	0.002	0.001
Education							-0.035**	0.008	-0.035**	0.008
Age							-0.021**	0.004	-0.022**	0.004
Black							0.064	0.046	0.06	0.046
Latino							-0.026	0.046	-0.033	0.046
Missing Respondent's Earnings	0.198**	0.054	0.199**	0.054	0.086	0.061	0.071	0.061	0.076	0.061
Missing Spouse's Earnings	0.073	0.065	0.083	0.065	0.054	0.075	0.095	0.074	0.089	0.074
Intercept	0.415**	0.081	0.497**	0.08	3.548**	0.278	3.305**	0.298	3.250**	0.301
N	5,207		5,207		4,831		4,710		4,710	
Chi -square	23.073**		70.428**		243.561**		284.830**		298.532**	

* p<0.05, ** p<0.01, *** p<0.001.

Table 4.3: Effect of Earnings Share when Earnings Share is Equal To or Greater Than Spouse's Earnings Share

	<u>Model 1</u>		<u>Model 2</u>		<u>Model 3</u>		<u>Model 4</u>		<u>Model 5</u>	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Earnings Share	-0.276**	-0.050	0.069	-0.096	0.221	-0.163	0.228	-0.166	0.320	-0.267
Earnings Share x Parent									-0.126	-0.279
Earnings Share x Men			-0.299**	-0.113	0.037	-0.142	-0.074	-0.143	-0.075	-0.306
Earnings Share x Men x Parent									0.009	-0.340
Men			-0.243**	-0.049	-0.294**	-0.051	-0.301**	-0.052	-0.317**	-0.104
Parent							0.050	-0.040	0.070	-0.090
Parent x Men									0.021	-0.119
Respondent's Earnings, Logged					-0.291**	-0.045	-0.180**	-0.049	-0.178**	-0.049
Spouse's Earnings, Logged					0.031	-0.025	0.006	-0.027	0.004	-0.027
Family Income, Logged					0.020	-0.031	0.028	-0.032	0.029	-0.033
Employed					-0.255**	-0.068	-0.255**	-0.069	-0.254**	-0.069
Paid Work Hrs. Week					0.002	-0.001	0.001	-0.001	0.001	-0.001
Spouse's Paid Work Hrs. Week					0.002	-0.001	0.002	-0.001	0.002	-0.001
Education							-0.039**	-0.007	-0.039**	-0.007
Age							-0.031**	-0.004	-0.031**	-0.004
Black							0.091*	-0.043	0.091*	-0.044
Latino							-0.053	-0.045	-0.053	-0.045
Missing Respondent's Earnings	0.225*	-0.090	0.200*	-0.090	0.216*	-0.105	0.230*	-0.105	0.231*	-0.105
Missing Spouse's Earnings	-0.059	-0.056	-0.038	-0.056	-0.136	-0.076	-0.149*	-0.076	-0.149	-0.076
Intercept	0.374**	-0.077	0.505**	-0.083	2.987**	-0.271	2.818**	-0.282	2.793**	-0.292
N	5,580		5,580		4,785		4,673		4,673	
Chi -square	38.794**		131.519**		257.066**		347.156**		347.541**	

* p<0.05, ** p<0.01, *** p<0.001.

Table 4.4: Effect of Earnings Share on Depressive Symptoms, Fixed Effects Models

	<u>Earnings Less Than Spouse's Earnings</u>		<u>Earnings Equal to or Greater Than Spouse's Earnings</u>	
	Estimate	s.e.	Estimate	s.e.
Earnings Share	-0.342*	-0.170	-0.266	-0.395
Earnings Share x Parent	0.596**	-0.166	0.180	-0.396
Earnings Share x Men	1.501**	-0.558	0.053	-0.419
Earnings Share x Men x Parent	-2.704**	-0.590	-0.326	-0.450
Parent	-0.008	-0.083	-0.050	-0.138
Parent x Men	-0.610**	-0.201	0.105	-0.165
Respondent's Earnings, Logged	-0.039**	-0.012	-0.014	-0.080
Spouse's Earnings, Logged	-0.119*	-0.049	-0.154**	-0.039
Family Income, Logged	0.047	-0.027	0.055	-0.031
Employed	-0.156**	-0.038	-0.344**	-0.087
Paid Work Hrs. Week	0.001	-0.001	0.000	-0.002
Spouse's Paid Work Hrs. Week	0.002	-0.001	0.003+	-0.002
Education	0.003	-0.031	-0.038	-0.051
Age	-0.023**	-0.004	-0.032**	-0.005
Missing Respondent's Earnings	0.083	-0.054	0.383**	-0.106
Missing Spouse's Earnings	0.233**	-0.068	-0.201**	-0.071
N	3,016		2,921	
Chi -square	203.831**		197.011**	

* p<0.05, ** p<0.01, *** p<0.001.

CHAPTER FIVE: DEPRESSION AND THE GENDERED LIFE COURSE

I. INTRODUCTION

The preceding chapters highlighted conflict between employment and motherhood, suggesting that incompatibility between work and family roles limits mothers' ability to benefit from employment and the resources a paid job provides. Evidence from Chapter Three indicated that the mental health benefits of employment are greatest for women who are skeptical about the compatibility of wage earning and mothering. Evidence from Chapter Four indicated that mothers benefit less from increased relative spousal earnings compared to childless women, supporting the notion that role incompatibility between motherhood and wage-earning alters household bargaining processes for mothers. These findings are expected to be of particular interest to scholars interested in the relationships among work and family. Yet conflict between employment and family roles may impact a variety of social and health processes less often considered through a work-family lens. The improvement in mental health during the first half of adulthood is one such process. In this final empirical chapter, I examine how work and family roles shape the improvement in mental health for men and women as they age towards midlife.

The concept of the life course has been valuable for understanding the age gradient in depressive symptoms, highlighting the contribution of employment and family role transitions to mental health. For men and women, mental well-being follows a U-shaped distribution across age. Depression levels fall during early adulthood, as individuals transition into social roles associated with improved mental health, chiefly employment and marriage. During older ages, mental health declines with the loss of those roles, as well as increased economic hardship and

declines in physical health (Clarke et al. 2011, Mirowsky and Ross 1992, Mirowsky and Ross 2001).

Yet in addition to recognizing entrances and exits into work and family roles, a life course approach to mental health calls for attention to the interlocking structure of multiple social roles over time. As MacMillan asserts, "...stratification and social differentiation in the life course occurs not just in terms of discrete statuses or roles, but in the role configurations and pathways that make up the general structure of the life course" (Macmillan 2005). Accordingly, as a theoretical construct, the life course may best contribute to our understanding of mental health when researchers account for combinations of social roles, and the timing of those roles. Life course scholars have often considered the temporal aspects of social roles by measuring the timing of role transitions, or roles' duration. However, the activities, expectations, and responsibilities of social roles, and their implications for mental health, may continue to change long after individuals have made initial transitions into employment, marriage, or parenthood. Moreover, the de-standardization of the life course—marked by the decoupling of marriage and parenthood, and frequent employment and marital transitions, encourages researchers to consider whether the effects of social roles change as individuals age.

Gender differences in employment and family roles suggest that accounting for the timing and combination of social roles may be especially fruitful for understanding differences in men's and women's mental health over the life course. For men, family and work roles are mutually beneficial. Cultural conceptions of fatherhood stress the value of breadwinning (Townsend 2002), boosting fathers' evaluation by employers (Shelley J. Correll, Stephen Benard and In Paik 2007), and the wages of married men relative to men without children (Killewald 2013). In contrast, women report competing demands between family care and employment, with

consequences for their mental health. Though the bulk of research finds that employment has either neutral or positive effects on women's well-being (for a review, see Klumb and Lampert 2004), other scholarship documents the stress and negative mental health implications of work-family conflict (Glavin, Schieman and Reid 2011, Goodman and Crouter 2009, for a review, see McNall, Nicklin and Masuda 2010). Given that the demands of childrearing change as children age, there is reason to suspect the psychological benefits of employment, and gender variations in the effects of employment, increase as parents and their children grow older.

This study investigates age and life course variations in the effect of employment and family roles on depressive symptoms. Temporal aspects of the life course are taken into account by considering the timing of work and family roles along two dimensions, individual's own age, and the age group of their youngest child. To better understand the contribution of parenthood to the age gradient of depressive symptoms, I first examine how observed age patterns of depressive symptoms vary by gender and parental status. Secondly, I consider whether the effects of work and family roles change as individuals grow older. Finally, I investigate how individuals' own age and the age of their children shape the mental health benefits of employment. Doing so highlights the contribution of parenthood to shaping the distribution of women's depressive symptoms by age, and draws attention to gender differences in the saliency of individuals' own age and their stage of childrearing for altering the benefits of employment.

II. THEORETICAL PERSPECTIVE AND PREVIOUS RESEARCH

Age, Social Roles, and Mental Health

Age and social roles have long served as cornerstones of life course research. As Elder describes, age represents the "timetable of the life course," which is defined in part by normative

age patterns for transitioning into social roles such as employment, marriage, or parenthood (Elder 1975: 165). Research on aging has also stressed the importance of social roles. Riley's age stratification perspective asserts that the structuring of age rests on social roles, and that aging is in large part the process of adjusting to shifting role behaviors and responsibilities (Riley 1987:4). Thus, both aging and life course perspectives posit that the social meaning of age is bound to social roles.

Attention to the impact of social roles has been fruitful for understanding the trajectory of mental health over adulthood. The U-shaped relationship between age and mental health, where depressive symptoms fall in early adulthood, are lowest in middle age, and rise in later years, are concordant with transitions of school to work, employment to retirement, and from singlehood to marriage, and marriage to widowhood or divorce. As Mirowsky and Ross write, "The emotional advantage of middle age rests chiefly on marriage and employment" (Mirowsky and Ross 1992). Though the benefits of marriage and employment on mental health occur in part via increased income and improved physical health, the positive effects of employment and marital roles persist even after controlling for income, physical health, education, and birth cohort (Clarke et al. 2011, Yang 2007).

Role Combinations

In addition to recognizing discrete roles, the conceptual framework of the life course stresses the interlocking structure of multiple social roles (Macmillan and Copher 2005), emphasizing the importance of accounting for role combinations. Mental health researchers have been particularly attentive to role combinations involving marriage. For example, Waldron, Weis and Hughes (1998) report that among women, employment is most beneficial to single women, while

marriage is most beneficial to women who are not employed. The authors argue that because marriage and employment provide similar resources in the form of financial and social support, the two roles serve as functional substitutes for one another in promoting mental health (Waldron, Weiss and Hughes 1998). Similarly, research suggests that the mental health effects of parenthood vary by union status. For example, the transition to parenthood is more deleterious to the mental health of single men and women than to married parents (Nomaguchi and Milkie 2003). The effect of parenthood also differs for cohabitators: cohabiting women experience greater distress from the transition to parenthood than married or single women, while cohabiting fathers experienced less distress than married men (Woo and Raley 2005).

Because childrearing is a distinct stage of the life course that most individuals transition in and out of as they age, attention to the combined effects of employment and parenthood may be particularly consequential for age variations in depression. Research on work and family role combinations crystallizes around two perspectives. The role enhancement perspective posits that holding multiple social roles brings additional resources and social support, resilience against role-stressors, and an enriched sense of self, all of which contribute to mental well-being (Sieber 1974, Thoits 1983). This perspective has been supported by research examining the accumulation of multiple types of social roles (Thoits 1983), as well as for combining employment and motherhood specifically (Frech and Damaske 2012, McMunn et al. 2006, Moen, Dempster-McClain and Williams 1992, Simon 1995). Alternatively, the role strain perspective suggests that social roles may infringe on one another, leading to stress and other negative effects on well-being (Goode 1960, Marks 1977). Scholarship on work-family conflict tends to support the role strain perspective, finding that conflict between work and family roles

decreases well-being (Glavin, Schieman and Reid 2011, Grzywacz, Almeida and McDonald 2002, Hochschild 1989, Keene and Quadagno 2004, Marks 1977).

Variations in mothers' and fathers' parental and employment role behaviors suggest that the effects of employment and parental role combinations on mental health vary by gender. Traditional family caretaking ideals are at odds with women's employment. The dominant cultural model of an ideal mother prizes intensive mothering, where mothers devote full attention to meeting children's needs whenever possible (Eyer 1996; Hays 1996). Like the family, work is also a "greedy institution" (Coser and Coser 1974), where ideal employees are unencumbered by family caregiving responsibilities (Williams 2000). In contrast, the expectation for fathers to be primary breadwinners allows men's work in the paid labor force to complement their role as a father (Townsend 2002).

The activities and rewards of parental and employment roles, and importantly, the effects of those activities and rewards on mental health, also vary by gender. For example, parenthood reduces women's labor market attachment and earnings (Budig and England 2001, Budig 2003), but is associated with an increase in earnings for men (Killewald 2013). Similarly, though men's contributions to household labor and childcare have increased modestly since the 1970s, women continue to perform the bulk of childrearing and household labor (Bianchi et al. 2012). Even when mothers and fathers engage in similar employment and family activities, role conflict generates greater stress for women in particular. For example, Glavin, Scheiman and Reed (2011) find that spillover of employment responsibilities into home life is associated with mental distress for women, but not for men. Similarly, the predictors of work-family balance are different for men and women. Women derive a greater sense of balance from spending time with

their family, while personal time appears to increase the sense of balance among men (Keene and Quadagno 2004).

Role Temporality

Life course scholars have emphasized role timing as a key component of the interlocking trajectories of multiple social roles (Macmillan and Copher 2005, Umberson, Pudrovska and Reczek 2010). Indeed, this weaving of social role trajectories forms the conceptual basis of the life course. “Life courses are structured to the extent that they are differentially defined by the *order and timing of multiple social roles* (behaviors and affect) in concert” p. 860 (Macmillan and Copher 2005).¹⁵ Much of the scholarship on work and family has approached the temporal aspects of social roles by measuring role transitions and trajectories. Role transitions indicate entry into or exit from a given social role, for example the transition from education to employment, whereas trajectories emphasize the continuity of a given social role, for example, length of marriage (Macmillan and Copher 2005). There is mixed evidence on the relative importance of employment transitions versus duration on mental health. For example, Pavalko and Smith (1999) find that employment transitions and durations both impact physical and mental health (Pavalko and Smith 1999). In contrast, in an analysis of married women’s employment trajectories, Wheaton and Reid (2008) report that employment durations are less salient than the timing of employment transitions for determining mental health (Wheaton and Reid 2008).

Individuals’ age and the age of their children are a temporal aspect of work and family roles not captured by role transitions and durations. Life course and symbolic interactionist

¹⁵ Italics authors’.

perspectives posit that social roles are defined by the activities performed in association with a role status (Elder 2003, Goffman 1956). Age and the age of children are tightly bound to the duties, rewards, and social expectations for role behaviors. Employment follows a strong normative patterning with age: accrual of seniority brings workplace authority, increased compensation, prestige, and preferred activities or schedules. The activities and responsibilities of childrearing are also determined by age, in this case, the age of one's child. Thus, while the timing of role exits, entries, and durations have provided valuable insights about the sequencing of roles within the life course, our understanding of aging and mental health may be enhanced by scholarship that accounts for age and life stage variations in role responsibilities, activities, and rewards.

The overlapping temporal aspects of employment and parenthood may be particularly consequential for gender differences in the benefits of social roles for mental health. For both employment and parenting, the age patterning of role activities varies by gender. Though women's labor force attachment declines during early parenthood and then increases as children age, men's employment is relatively unresponsive to parenthood. Similarly, gender divisions in the labor of parenting—childbirth, childcare, and housework-- are most acute when children are young. These gender differences in employment and parental role behaviors suggest that age gradients in the mental health consequences of employment and parental roles will vary by gender.

III. HYPOTHESES

The life course framework generates testable hypotheses for how the combinations and timing of social roles impact depressive symptoms. This study samples respondents during their prime

employment and childrearing years—their late 20s up until age 50, capturing the time period when depressive symptoms tend to fall. Accordingly, the hypotheses focus on the overall decline in depressive symptoms expected during this age period.

The first hypothesis for this study considers whether the mental health consequences of parenthood, employment, and marriage vary as individuals age. Previous research indicates that the greater likelihood of being married or employed at midlife contributes to the curvilinear age distribution of depressive symptoms across the population. Yet it is unclear whether the mental health effects of employment and family roles change as individuals grow older, or whether the decline in depressive symptoms is greater when individuals are employed, married, or a parent. The social norm for individuals to have transitioned into employment and marriage by midlife, paired with the greater likelihood for midlife parent's children to be older with fewer caregiving demands, suggests that aging towards midlife will increase the protective effect of social roles.

H1: Social roles will be more protective against depression as individuals age towards midlife.

Gender variations in the activities, expectations, and responsibilities associated with work and family roles suggest that aging through the life course will vary the effect of social roles differently for men and women. Normative patterns for men to be employed throughout middle adulthood suggest that the social role of employment will be salient for improving men's mental health as they age towards midlife. In contrast, research highlighting women's disproportionate share of childrearing labor, and the greater impact of work and family role conflict on women's mental health, suggests that parenthood will be salient for shaping women's mental health as they age.

H2: Employment will increase the age gradient in depressive symptoms as men age towards midlife, but have no effect on women.

H3: Parenthood will increase the age gradient in depressive symptoms as women age towards midlife, but have no effect on men.

The final set of hypotheses considers the overlapping effects of the social roles of employment and parenthood. The hypotheses test multiple temporal dimensions of the life course and separate the overlap of age from the stages of childrearing. The effects of combining employment and parenthood are expected to vary by gender. For men, research highlighting the importance of breadwinning as a key component of the social role of fatherhood suggests that children will enhance the mental health benefits of employment. For women, previous research highlighting conflict between work and family roles suggests that children will decrease the mental health benefits of employment. Because the care demands of children change as children grow older, and because women are more likely than men to provide direct caregiving for children, the effect of parenthood in moderating women's mental health gains from employment is expected to vary with children's age.

H4: Children will weaken the effect of employment on reducing depressive symptoms for women, and strengthen the effect of employment on reducing depressive symptoms for men.

H5: Among women, the moderating effect of children on the mental health benefits of employment will vary with the age of their youngest child.

IV. DATA AND METHODS

Sample

The sample is drawn from the 1992 to 2010 waves of National Longitudinal Survey of Youth, 1979 (NLSY79). For this study, depressive symptom data is drawn from all four time points where measures of CES-D depressive symptoms were collected: the 1992 and 1994 survey rounds, and the Age 40 and Age 50 Health Modules. The age range of the subsample of the NLSY respondents used in this study is 27 to 53. These years are of particular interest given their location during individuals' prime employment years. The NLSY79 data set does not contain mental health measures during respondent's early twenties, and the sample has not yet aged to typical retirement ages. Thus, analyses of the effect of life course transitions into and out of employment and parental status are beyond the capabilities of the data. Instead, the data allows for a focused analysis during midlife—when the majority of respondents are involved in employment and active parenting. Doing so draws attention away from employment and parental transitions and instead emphasizes the force of respondents' age and age of their children in varying the mental health effects of parental and employment roles.

Key Measures

The outcome measure of mental health is self-reported depressive symptoms, measured using the 7-item Center for Epidemiological Studies Depressive Symptoms scale (CES-D). The measure is a weighted count of the number of depressive symptoms experienced in a given week, with symptom counts ranging from 0-21.

The life course is considered in two dimensions—age and the presence of young children. To ease interpretation of the effects of age once interaction terms between age and employment are

included, in multivariate analyses, age is centered at the youngest age for the sample of 27 years. Because age has previously been observed to have a curvilinear relationship to depression, I use the quadratic formula for age by including age and age squared as covariates in the models. These forms produced better fitting models than the logged and cubed age transformations that other depression and age studies have sometimes used, likely because the NLSY79 sample does not contain depression measures during very early adulthood or old age, when depression and age slopes are steepest.

The second dimension of the life course captures the presence of children and the age of the respondents' youngest child. When measured as a dichotomous social role, parenthood represents having at least one biological, step, or adopted child between the ages of zero and eighteen at home. Other models separate parenthood by the age of respondents' youngest child, with separate categories for children under the age of six, between the ages of six and twelve, and between the ages of thirteen and eighteen, with respondents without a child age eighteen or younger comprising the referent category. These age groupings correspond to the ages of kindergarten attendance and the completion of high school, making the categories both practically and culturally salient for parenting tasks and care expectations.

The analysis examines age-variations in the effects of the social roles of employment, marriage, and parenthood. In keeping with the role accumulation theoretical perspective, all three roles are measured dichotomously. Employed and married are equal to one if the respondent is employed or married at the time of survey. Parenthood captures having a biological, adopted, or step child under the age of 18 living in the respondent's home. The multivariate analyses also control for basic socio-demographic covariates including logged family income, the highest grade of education completed, being black or Latino. Because aging increases the risk of health

conditions that may select men and women out of employment, and potentially reduce the mental health effects of social roles at later ages, I control for having a health condition that limits employment. Descriptive statistics for the sample and covariates are presented in Table 5.1.

Methods

I first examine the bivariate relationships between age and observed depressive symptoms graphically for men and women by parental status. I test differences in the effect of age on observed depressive symptoms by parental status, using separate models for men and women. Next, I examine whether the effects of the social roles of employment, marriage, and parenthood on depressive symptoms vary with age. Finally, the study considers overlap in the temporal dimensions of parenthood and age, testing how age and stages of childrearing impact the protective effects of employment on mental health.

I pool data from the four survey time points in the NLSY79 survey that include measures of depressive symptoms. I use negative binomial models because the outcome measure is a weighted count of depressive symptoms and is over-dispersed. In order to control for correlations in the error across the multiple observations for each respondent, I use random effects negative binomial models. The random effects estimation produced better fitting models than did simply pooling the data. I use separate models for men and women given the expectation for the effects of social roles by age to be different for men and women.

Missing data is addressed using multiple imputation. For all socio-demographic covariates except family income, only 2 percent or fewer cases had missing data. 17.5 percent of respondents were missing family income data. Missing data for all covariates was imputed using the “mi impute” command in Stata. Due to the relatively large portion missing family income

data, I included respondent's and their spouse's earnings and weeks worked in the prior calendar year, and total family income reported in the previous NLSY survey wave, in addition to the covariates used in the multivariate analyses, in the imputation model. Presented results combine random effects negative binomial estimates from ten imputations. Results using imputed values were similar to those using complete case analysis.

V. FINDINGS

Age, Parenthood, and the Distribution of Depression

Figure 5.1 presents observed depressive symptoms for men and women. As expected, depression follows a curvilinear path for both men and women across adulthood. Though women have a higher rate of depression at all ages, the lowest rate of depressive symptoms occurs around age 40 for both genders. These patterns are similar for men with and without children (Figure 5.2). However, the distribution of depressive symptoms during adulthood for women varies by parental status (Figure 5.3). Among mothers, depression declines steeply with age, reaching its lowest rate during their early forties. Women not caring for children are the only group for who observed depression and age does not have a curvilinear relationship. These women experience an increase in depressive symptoms across all years of middle adulthood.

Results presented in Table 5.2 test the statistical significance of parental differences in the effect of age on depressive symptoms for men and women. In Model 1, men of all parental statuses are examined together. Controlling for parenthood, age is associated with a reduction in depressive symptoms among men as they approach midlife. Age-squared increases depressive symptoms, representing the diminishing effect of age in reducing depressive symptoms as men reach middle adulthood, and the increase in depressive symptoms during later years. Without

controls for socio-demographic characteristics, parenthood reduces the logged number of depressive symptoms by 0.126. Model 2 adds the interaction terms “Age x Parent” and “Age-squared x Parent” to test for differences in the effect of age by parental status. Among men, these terms are not significant, indicating that parenthood does not vary the effects of aging on men’s depressive symptoms, and that aging does not alter the effect of parenthood.

Among women, Model 1 indicates that depressive symptoms decline in the earlier years of middle adulthood, and then rise at later ages. The effect of parenthood is not significant, indicating that when women of all ages are examined together, parenthood is not associated with poorer mental health. Yet analyzing the effects of parenthood by age reveals a different pattern. In Model 2, the addition of interaction terms for parenthood and age shifts parenthood to measuring the effect of age for non-parents, and shifts parenthood to measuring the effect of parenthood when age equals zero. This study centers age at 27, the age of the youngest sampled respondents. Thus, the positive and significant effect of parenthood indicates that children increase the risk of depressive symptom for the youngest women in the sample. At age 27, parenthood is associated with an increase of 0.213 logged depressive symptoms per week. However, the harmful effects of parenthood diminish as women grow older, indicated by the negative and significant interaction terms for age and parenthood. The age-parent interaction terms can also be interpreted as modifying the effect of age on depression. Compared to women not caring for children, advances in age towards midlife are associated with a greater reduction in depressive symptoms for mothers than women without children.

The observed effect of parenthood in structuring women’s age gradient in depression persists after controlling for employment, marriage, education, family income, race, and functional health limitations. Figures 5.4 and 5.5 show the predicted depression symptoms across midlife for men

and women by parental status, controlling for the socio-demographic and health covariates included in Tables 5.3 and 5.4. Though socio-demographic controls attenuate the rise in depression symptoms with age for women not caring for children, the slopes of the curves remain different for women with and without children. In sum, the observed and predicted depressive symptoms indicate that men and women both experience a decline in depression as they approach midlife. However, parenthood changes the age gradient in depressive symptoms among women, so that aging towards midlife is associated with greater declines in depressive symptoms among mothers than among women without children. In contrast, parenthood does not alter the age gradient in depressive symptoms among men. These findings suggest that changes in depressive symptoms over the life course arise from different sources for men and women.

Social Roles and Age

The models in Tables 5.3 and 5.4 examine if the effect of social roles on depressive symptoms vary as individuals age from their late twenties to early fifties. In Table 5.3, Model 1 shows the effects of age and social roles on women's depression when age is held constant. Controlling for roles, health limitations, and socio-demographic characteristics, aging towards midlife reduces women's depressive symptoms. Employment and marriage both reduce depressive symptoms when women of all ages are pooled together, while parenthood has no effect. Predictably, more years of education and greater family income also reduce depression. Relative to those who are not Black or Hispanic, Latina women experience fewer depression symptoms. Health limitations are associated with an increase in depression.

Model 2 investigates if the benefits of the social role of employment vary with age by adding interaction terms for age and employment. The term Age x Employment is negative and

significant, indicating that aging towards midlife is associated with fewer depressive symptoms for employed women than for women without jobs. Conversely, employment is more beneficial to women's mental health as they approach middle-age. With the addition of the interaction terms, the effect of age represents the effect of growing older for women who are not employed, and the effect of the covariate for employment represents the effect of having a job for women when age is equal to zero (set at 27 years). For the youngest women, employment confers no detectable mental health benefits net of socio-demographic controls, as indicated by the non-significant effect of employment in Model 2. The protective effect of employment peaks at ages 41 and 42, at which point being employed is associated with a decline of 0.197 logged depressive symptoms per week. Age retains its curvilinear association with mental health for women out of the labor force.

Models 3 and 4 examine age variations in the effect of family roles. In Model 3, the negative and significant effect of marriage indicates that marriage reduces depressive symptoms for the youngest women in the sample. Yet there is not evidence that the health benefits of marriage increase as women age towards midlife, as the "Married x Age" term is not significant. If anything, the significance of the "Marriage x Age-squared" term suggests that the benefits of marriage may decline during later ages. However, this effect drops out in Model 5.

Model 4 adds interaction terms for age and parenthood, and the significant interaction terms indicate that the effects of parenthood change as women age. The interaction term for age and parenthood is negative and significant even after controlling for socio-demographic covariates, indicating that the detrimental effect of parenthood on mental health diminishes as women age towards midlife. Conversely, mothers experience a greater decline in depressive symptoms as they age towards midlife than do women without children. For the referent group of women aged

27, parenthood is associated with an increase of 0.163 in the number of logged depressive symptoms. By age 42, children have a protective effect against depression, reducing depression by 0.052 logged symptoms per week.

Comparing the effects of social roles for women of all ages, presented in Model 1, with the effects of social roles for the referent group in Models 2, 3 and 4 highlights the way in which age shapes the effect of social roles. Model 1 indicated that when all women are examined together without attention to age and role interactions, being employed improves mental health and parenthood has no detectable effect on depressive symptoms. The addition of interaction terms reveals that the effects of employment and parenthood are age-specific. At age 27, employment does not significantly effect depression, and parenthood increases depression symptoms. As women age towards midlife, the beneficial effects of employment increase, while the detrimental effects of parenthood diminish.

Model 5 includes interaction terms for age and all three social roles, in order to test the robustness of the age-role interactions when interaction terms for all three roles are included in the model. Among women, the interaction terms for age with employment, and age with parenthood, retain their significance.

Table 5.4 presents the effects of age, social roles, and their interactive effects on men's depression. Model 1 indicates that the observed U-shaped relationship between age and depressive symptoms presented in Figures 5.1 and 5.2 persists after controlling for social roles and socio-demographic characteristics. As was true for women, employment and marriage reduce men's depressive symptoms when men of all ages are pooled together. Though parenthood had no detectable effect on depression for women at large, parenthood increases men's depressive symptoms when men of all ages are examined together.

In Models 2 through 5, the addition of interaction terms for age and social roles indicate that among men, only the mental health benefits of employment vary as men age. In Model 2, the interaction term for Employment x Age is negative and significant, indicating that the benefit of employment increases as men age towards midlife, and conversely, that aging towards midlife has a stronger effect on depressive symptoms of employed men compared to men without jobs. As was observed among women, employment does not reduce depression among the youngest men of the sample, indicated by the non-significant coefficient for employment in Model 2. Employment is most protective for men at ages 41 and 42, when employment is associated with a 0.459 reduction in the count of logged depressive symptoms. Models 3 through 4 add interaction terms for age and family roles. There is no evidence that the effects of marriage or parenthood change as men grow older. Moreover, the interactive effects of age and employment are robust to inclusion of interaction terms for age and family roles.

Effect of Age and Role Combinations

The final portion of this analysis considers how the effects of employment change as individuals concurrently age and pass through stages of parenthood. The analysis captures the overlaying temporal dimensions of parenthood and employment in two respects, respondents' age, and their stage of childrearing, measured according to the age group of respondents' youngest child.

Results for women are presented in Table 5.5. I first examine the effects of employment, age, and their interactions while controlling for the presence of young, school-aged, and teenage children (Models 1 and 2). Controlling for the age group of children does not alter the age gradient in the effects of employment observed in Table 5.3. Model 3 in Table 5.5 substitutes the

age and employment interaction terms for interaction terms capturing the effects of employment and stages of childrearing. The positive and significant interaction term for “Employed x Child Under 6” indicates that among mothers, the presence of young children reduces the protective effect of being employed. Though women without children experience a reduction of 0.199 logged depressive symptoms, the protective effect of employment is diminished to 0.067 when women care for young children ($-0.199 + 0.132 = -0.067$). Notably, the effect of employment for mothers of young children, though small, remains statistically significant, indicating that even mothers with young children have fewer symptoms of depression if employed. In Model 3, there is no evidence that caring for older children reduces the benefits of employment, nor is there evidence that the presence of children in any age group impacts depression symptoms among women who are not employed.

Model 4 includes interaction terms for employment and age, and employment and stage of childrearing. The moderating effect of women's own age, and their stage of childrearing, on the benefits of employment are robust. Including both sets of interaction terms has minimal impact in altering the size of the interaction coefficients for employment and age, suggesting that the interaction of age and employment observed in Model 2 is not driven by the aging of children, but stems from the aging of women themselves. It is also notable that the effect of employment is negative and significant once interaction terms for children's age and employment are added. This addition shifts the effect of employment and age coefficients to represent the effect of age and employment when age and child covariates are equal to zero, in this study, 27 year old women without children. For these women, both employment and advances in age towards midlife reduce depressive symptoms. The inclusion of age-employment interaction terms also changes the significance of the interaction term for having a child between the ages of six and

12. The interaction effect is positive and significant, indicating that for women age 27 (the referent group) employment is associated with fewer mental health rewards for those who have a child in elementary or middle school compared to women aged 27 who do not have children.

Table 5.6 presents results for men. Controlling for the age grouping of children does not alter the benefit of employment when men of all ages are examined together (Model 1). In Model 2, the interaction terms for age and employment are significant. They remain significant in the final model (Model 4), indicating that the interactive effects of age and employment are not driven by the aging of children.

Model 3 tests whether the presence of children alters the benefits of employment for men. There is no indication that children of any age reduce the benefit of employment. Instead, there is evidence that having teenage children increases the benefit of employment for men's mental health. As indicated in Model 3, for men of all ages without children, employment is associated with a reduction in depressive symptoms of -0.262 logged symptoms per week. Teenagers increase this protective effect to -0.579 logged symptoms per week ($-0.262 + -0.317 = -0.579$). At the same time, there is evidence that having older children is detrimental to mental health of men who do not have jobs. In Model 3, the effects of teenage and children between the ages of six and 12 for the referent group of men out of the labor force are positive and significant. The effect of teenage children remains significant, though the effect of having a child between the ages of six and 12 drops out in Model 4. Notably, the interaction term for being employed and having a teenage child can also be interpreted as offsetting the effect of teenage children on depression among men who are not employed. For example, in Model 3, the effect of having a teenage child among men who are employed is 0.028 ($-0.357 + 0.385 = 0.028$).

In supplementary analysis, I controlled for other parental characteristics that might alter the relationships among parenthood, employment, and depression. Having a teen birth increased the risk of depression, but the addition of a control for being a teen parent did not alter the effects of parenthood and employment. Covariates controlling for the number of children or experiencing the birth of a child within the past year were also not significant. I also investigated whether the mediating effect of young children on women's employment might be driven by having recently experienced childbirth or currently caring for an infant. Separating children under age six into two groups indicated that while having an infant reduces the benefit of employment for women, the size of the mediating effect of infants on employment is comparable to the mediating effect of children aged one to five years. Accordingly, infants and children under the age of five were retained as a single group in the presented analyses.

VI. DISCUSSION

In laying out the normative model of the life course, Elder described, “Marriage and motherhood would be key elements of this model in the lives of girls, with economic independence and stable employment assuming priority in the normative life course of boys” (Elder 1975: 175). Since Elder's writing, the family component of the life course was subject to increasing de-standardization as individuals took diverse family pathways in their timing of childbirth, sequencing of marriage and parenthood, and relatively frequent transitions between cohabitation, marriage, and divorce (Shanahan 2000). During the same time period, employment became increasingly standardized as men and women's employment pathways became more similar (Brückner and Mayer 2005). Despite these changes, presented results echo early life course scholarship stressing that parenthood shapes the life course of women.

This study's finding that parenthood contributes to the age gradient in depressive symptoms among women stands apart from previous scholarship on the age gradient in mental health. Existing studies on age and mental health do not report an effect of parenthood on mental well-being (Clarke et al. 2011, Mirowsky and Ross 1992, Mirowsky 1996, Mirowsky and Ross 2001). In their seminal paper on depression and age, Mirowsky and Ross (1992) state in a footnote that they did not include a covariate for the presence of children in their models because parenthood had only a "negligible" effect on depressive symptoms for the overall sample, and suggest that the effects of children are contingent upon a variety of factors, including employment status. Results from this study do not refute earlier findings. I find that as a one-dimensional social status, parenthood in and of itself does not contribute to the U-shaped age gradient in mental health during middle adulthood. When measured as a single social role without accounting for employment's or parenthood's interaction with age, I find no significant effect of parenthood on depression among women in the NLSY79 sample. Among men, parenthood modestly increases depressive symptoms, but there is minimal indication that fatherhood contributes to the U-shaped age gradient in men's depression

Yet while one-dimensional measures of parenthood do not capture parenthood's contribution to the age gradient of depression over adulthood, in this study I show that accounting for role temporality, role combinations, and gender reveals that the social role of parenthood shapes the age gradient in women's mental health. Parenthood increases the association between women's age and depressive symptoms, making women's age gradient of depression look more like the age gradient observed among men of all parental statuses. Other scholars have emphasized the value of a life course approach to understanding the effects of parenthood on well-being. Umberson, Pudrovska, and Reczek write, "If we compartmentalize individual studies into age-

restricted snapshots, we fail to understand how parenthood shapes life trajectories in meaningful and lasting ways...” (Umberson, Pudrovska and Reczek 2010:622). The age-varying effect of parenthood on the mental health among the youngest baby boomer women illustrates the limitation of age-restricted snapshots. Because the detrimental effect of parenthood on mental health declines as women age, the impact of children in contributing to the age gradient in depression is only detectable when models account for the interaction between parenthood and age.

Findings from this research also identify increasing mental health returns to employment as men and women grow older. The increased mental health returns to employment may occur through several processes. For example, employment benefits and their effects on health may accrue through a process of cumulative advantage that occurs concurrently with age as individuals gain seniority and experience (Andrea E. Willson, Kim M. Shuey and Glen H. Elder 2007, DiPrete and Eirich 2006). The stronger effect of employment on midlife mental health may also reflect adherence to culturally supported timelines for occupancy of life course roles. Additionally, work values and job satisfaction vary with age (Johnson 2005, Kalleberg and Loscocco 1983, Loscocco and Kalleberg 1988), potentially contributing to age variations in the mental health consequences of being employed. Finally, it is worth noting that reports of age discrimination are more common among older workers, with consequences for their well-being (Gee, Pavalko and Long 2007), which may vary the impact of having or not having a job on mental health.

Yet despite gender similarities in the increased rewards of employment as individuals advance towards midlife, the presence of children has different effects on moderating the benefits of employment for men and women. Among women, the increasing rewards of employment across

the life course occur via women's own aging, and the aging of their children. I find that motherhood reduces gains to employment when children are young, but has no discernable effects on employment when children are teenagers. The mediating effect of younger children may be due to social ambivalence of about mothers' employment, particularly when children are young (Hays 1996). When children are older, employment infringes less on providing direct childcare, potentially enhancing the mental health rewards of having a paid job. More practically, the greater time demands of caring for young children, and the stress those demands generate when they conflict with employment, may also cause the mental health benefits of employment to increase as children grow older.

Among men, I find that having teenage children increases the mental health benefits of employment. This finding aligns with research on fatherhood that emphasizes the importance of breadwinning for being a good father (Townsend 2002), fathers' preferential treatment by employers (Correll, Benard and Paik 2007), and increased earnings among married fathers (Killewald 2013). Yet there is no evidence that the time-intensive care demands of younger children reduce the benefits of employment for men's mental health as they do for women, mirroring other studies finding that work-family conflict is detrimental for women's mental health, but not for men's (Glavin, Schieman and Reid 2011). There is also no evidence that the social role of parenthood is associated with a decline in depressive symptoms as men approach midlife. The lack of age variations in the effect of parenthood on men's mental health may be due to the offsetting effects of parenthood for men with and without jobs, so that the increased benefit of employment for fathers of teenagers relative to childless men is counteracted by worse mental health among jobless fathers. In sum, despite boosting the mental health benefits of

employment, parenthood as a social role has little bearing on the overall age gradient in men's depression during adulthood.

VII. CONCLUSION

This study sought to investigate how parenthood contributes to the age gradient in depressive symptoms over the life course, and whether the effects of work and family roles on mental health change as individuals age. I find the protective effect of employment against depression increases as men and women age towards midlife, and that the presence of younger or older children moderates the effect of employment in gender-specific ways. For women, young children reduce the mental health benefits of employment. For men, teenage children increase the mental health benefits of having a job. Yet while children alter the effect of employment on depression for both genders, parenthood only shapes the age gradient in depressive symptoms among women. The arrayed results suggest that the structure of aging and mental health remains tethered to the traditionally gendered life course, where parenthood is salient for women's age processes and employment salient for men's.

Findings from this study encourage those interested in mental health across the life course to consider the shifting nature of parental responsibilities, and their varying impact on employment, as women age through life course stages. Though men and women both accrue greater mental health rewards from employment as they age towards midlife, the primacy of employment rather than parenthood in structuring the life course of men suggests that overlooking role combinations and the stages of parenthood has minimal consequence for understanding the distribution of men's depressive symptoms over adulthood. Yet because the social role of parenthood shapes the age distribution of depression symptoms among women, attention to the concurrent process of

aging and movement through stages of parenthood are integral for understanding the social patterning of age and mental health.

VIII. SUMMARY OF CHAPTER FIVE

This study explores heterogeneity in the age gradient in depressive symptoms by gender and parental status, and investigates whether the mental health returns to employment vary as individuals and their children age. Results indicate that parenthood increases the decline in depressive symptoms as women age towards midlife, but does not alter the decline in men's depression. While men and women both garner greater mental health benefits from employment as they approach midlife, the moderating effect of parenthood on the mental health returns to employment varies by gender and by the presence of children. Compared to childless women, mothers experience reduced mental health benefits from employment when they have young or school-aged children. Compared to childless men, fathers enjoy increased protective effects from employment when they have teenaged children. Findings point to gender differences in the compatibility of work and family roles, and to gender differences in the saliency of parenthood for shaping mental health over the life course.

Figure 5.1:

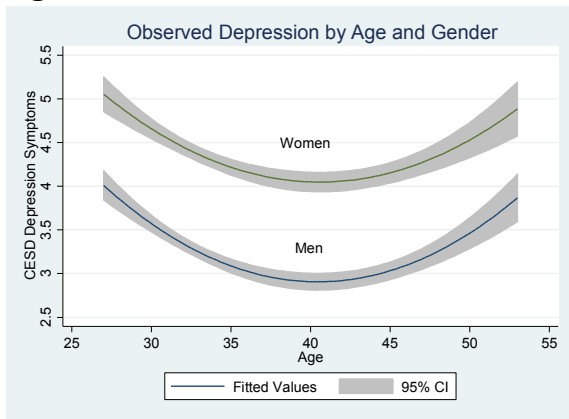


Figure 5.2:

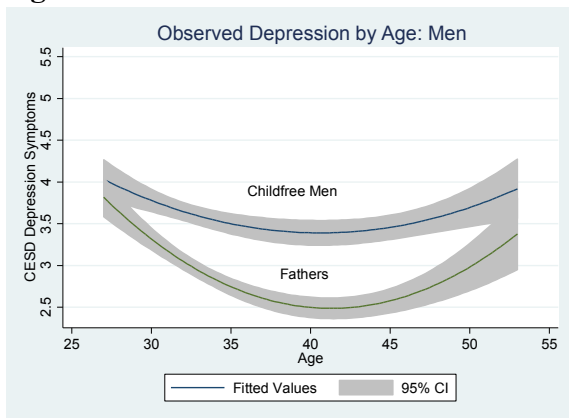


Figure 5.3:

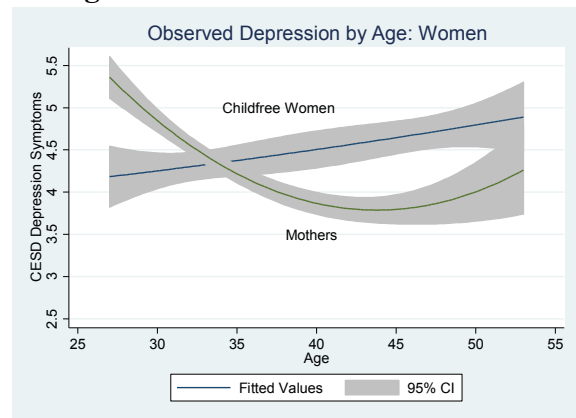


Figure 5.4:

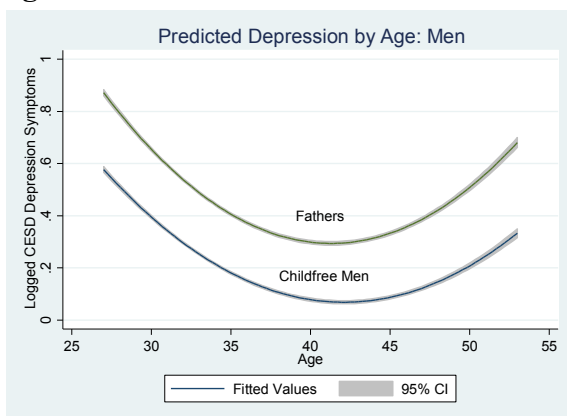


Figure 5.5:

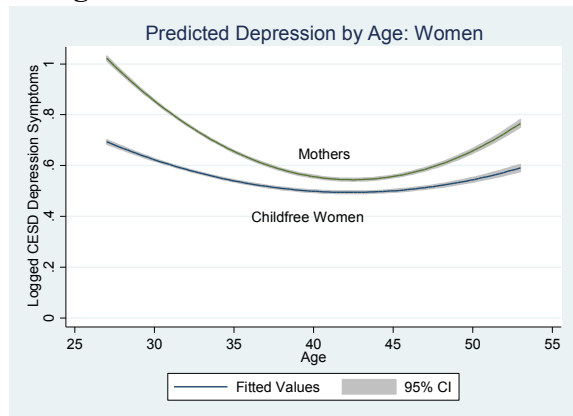


Table 5.1: Sample Means for the NLSY 1979 Cohort

Variable	Mean	Std. Dev.
CES-D Depression Symptoms	3.83	4.19
Age	36.88	6.55
Men	0.49	0.50
Women	0.51	0.50
Employed	0.78	0.42
Married	0.55	0.50
Parent	0.57	0.49
Child < 6 Years Old	0.27	0.44
Child 6-12 Years	0.21	0.40
Child 13-18 Years	0.10	0.29
Family Income	54,798	88,338
Education: Highest Grade	13.06	2.47
Black	0.30	0.46
Latino	0.19	0.40
Health Limitation	0.11	0.31
N	29,780	

Table 5.2: Associations of Age, Parenthood and Depressive Symptoms

	<u>Men</u>				<u>Women</u>			
	<u>Model 1</u>		<u>Model 2</u>		<u>Model 1</u>		<u>Model 2</u>	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Age	-0.072 ***	0.005	-0.063 ***	0.006	-0.057 ***	0.004	-0.028 ***	0.007
Age²	0.002 ***	0.000	0.002 ***	0.000	0.002 ***	0.000	0.001 ***	0.000
Parent	-0.126 ***	0.020	-0.037	0.048	-0.003	0.019	0.213 ***	0.047
Parent x Age			-0.018	0.010			-0.038 ***	0.009
Parent x Age²			0.001	0.000			0.001 **	0.000
Intercept	0.863 ***	0.037	0.824 ***	0.041	1.000 ***	0.035	0.841 ***	0.047
N	14,671		14,671		15,109		15,109	

* p<0.05, ** p<0.01, *** p<0.001.

Table 5.3: Effect of Roles and Age on Depressive Symptoms, Women

	<u>Model 1</u>			<u>Model 2</u>			<u>Model 3</u>			<u>Model 4</u>			<u>Model 5</u>		
	Estimate		s.e.	Estimate		s.e.	Estimate		s.e.	Estimate		s.e.	Estimate	s.e.	
Age	-0.049	***	0.004	-0.034	***	0.007	-0.042	***	0.006	-0.030	***	0.007	-0.006	0.010	
Age²	0.002	***	0.000	0.001	***	0.000	0.001	***	0.000	0.001	**	0.000	0.000	0.000	
Employed x Age				-0.022	*	0.009							-0.026	**	0.009
Employed x Age²				0.001	*	0.000							0.001	*	0.000
Married x Age							-0.016		0.008				-0.009		0.008
Married x Age²							0.001	*	0.000				0.000		0.000
Parent x Age										-0.028	**	0.009	-0.030	***	0.009
Parent x Age²										0.001	*	0.000	0.001	*	0.000
Employed	-0.141	***	0.019	-0.035		0.043	-0.142	***	0.019	-0.137	***	0.019	-0.010		0.044
Married	-0.165	***	0.019	-0.167	***	0.019	-0.110	**	0.042	-0.167	***	0.019	0.186	***	0.047
Parent	0.018		0.019	0.022		0.019	0.020		0.019	0.163	***	0.046	-0.149	***	0.043
Education	-0.042	***	0.004	-0.042	***	0.004	-0.041	***	0.004	-0.040	***	0.004	-0.040	***	0.004
Log Family Income	-0.019	***	0.005	-0.018	***	0.005	-0.019	***	0.005	-0.019	***	0.005	-0.018	***	0.005
Black	0.028		0.023	0.029		0.023	0.027		0.023	0.025		0.023	0.025		0.023
Latino	-0.062	*	0.027	-0.062	*	0.027	-0.062	*	0.027	-0.062	*	0.027	-0.061	*	0.027
Health Limitation	0.543	***	0.022	0.538	***	0.023	0.542	***	0.022	0.544	***	0.022	0.537	***	0.023
Intercept	1.794	***	0.074	1.723	***	0.079	1.768	***	0.077	1.671	***	0.083	1.561	***	0.089
N	15,109			15,109			15,109			15,109			15,109		

* p<0.05, ** p<0.01, *** p<0.001.

Table 5.4: Effect of Roles and Age on Depressive Symptoms, Men

	<u>Model 1</u>			<u>Model 2</u>			<u>Model 3</u>			<u>Model 4</u>			<u>Model 5</u>		
	Estimate		s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.		
Age	-0.065	***	0.005	-0.015	0.009	-0.059	***	0.006	-0.060	***	0.006	-0.014	0.010		
Age²	0.002	***	0.000	0.000	0.000	0.002	***	0.000	0.002	***	0.000	0.000	0.000		
Employed x Age				-0.065	***	0.011						-0.064	***	0.011	
Employed x Age²				0.002	***	0.000						0.002	***	0.000	
Married x Age								-0.013	0.009			0.006	0.012		
Married x Age²								0.001	0.000			0.000	0.000		
Parent x Age											-0.014	0.010	-0.009	0.012	
Parent x Age²											0.001	0.000	0.000	0.000	
Employed	-0.288	***	0.026	0.008	0.055	-0.289	***	0.026	-0.289	***	0.026	0.016	0.056		
Married	-0.175	***	0.025	-0.178	***	0.025	-0.142	**	0.047	-0.175	***	0.025	0.099	0.059	
Parent	0.049	*	0.024	0.054	*	0.024	0.055	*	0.024	0.100	*	0.048	-0.235	***	0.060
Education	-0.043	***	0.004	-0.044	***	0.004	-0.043	***	0.004	-0.043	***	0.004	-0.043	***	0.004
Log Family Income	-0.014	**	0.005	-0.013	**	0.005	-0.014	**	0.005	-0.014	**	0.005	-0.013	**	0.005
Black	0.058	*	0.025	0.059	*	0.025	0.058	*	0.025	0.058	*	0.025	0.058	*	0.025
Latino	-0.020		0.029	-0.017		0.029	-0.021		0.029	-0.021		0.029	-0.018		0.029
Health Limitation	0.592	***	0.028	0.577	***	0.028	0.594	***	0.028	0.592	***	0.028	0.577	***	0.028
Intercept	1.686	***	0.076	1.459	***	0.085	1.670	***	0.078	1.665	***	0.079	1.462	***	0.087
N	14,671			14,671			14,671			14,671			14,671		

* p<0.05, ** p<0.01, *** p<0.001.

Table 5.5: Effect of Employment for Women by Age and Parental Stage

	<u>Model 1</u>			<u>Model 2</u>			<u>Model 3</u>			<u>Model 4</u>		
	Estimate	s.e.		Estimate	s.e.		Estimate	s.e.		Estimate	s.e.	
Age	-0.048	***	0.004	-0.032	***	0.007	-0.048	0.004		-0.035	***	0.007
Age²	0.001	***	0.000	0.001	***	0.000	0.001	***	0.000	0.001	***	0.000
Employed	-0.138	***	0.019	-0.028		0.044	-0.199	***	0.033	-0.140	*	0.055
Employed x Age				-0.023	**	0.009				-0.020	*	0.009
Employed x Age²				0.001	*	0.000				0.001	*	0.000
Employed x Child < 6							0.132	**	0.043	0.147	**	0.047
Employed x Child 6-12							0.069		0.044	0.098	*	0.047
Employed x Child 13-18							-0.039		0.053	-0.011		0.055
Child < 6	0.041		0.024	0.047		0.024	-0.047		0.038	-0.057		0.041
Child 6-12	0.009		0.022	0.013		0.022	-0.043		0.038	-0.061		0.040
Child 13-18	0.006		0.026	0.009		0.026	0.030		0.044	0.010		0.045
Married	-0.169	***	0.019	-0.171	***	0.019	-0.173	***	0.019	-0.175	***	0.019
Education	-0.041	***	0.004	-0.042	***	0.004	-0.042	***	0.004	-0.042	***	0.004
Log Family Income	-0.019	***	0.005	-0.018	***	0.005	-0.017	***	0.005	-0.017	***	0.005
Black	0.028		0.023	0.029		0.023	0.027		0.023	0.027		0.023
Latino	-0.062	*	0.027	-0.061	*	0.027	-0.062	*	0.027	-0.062	*	0.027
Health Limitation	0.545	***	0.022	0.540	***	0.023	0.533	***	0.023	0.534	***	0.023
Intercept	1.779	***	0.075	1.706	***	0.080	1.817	***	0.077	1.780	***	0.083
N	15,109			15,109			15,109			15,109		

* p<0.05, ** p<0.01, *** p<0.001.

Table 5.6: Effect of Employment for Men by Age and Parental Stage

	<u>Model 1</u>		<u>Model 2</u>		<u>Model 3</u>		<u>Model 4</u>	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Age	-0.065 ***	0.005	-0.016	0.009	-0.065 ***	0.005	-0.020 *	0.010
Age²	0.002 ***	0.000	0.000	0.000	0.002 ***	0.000	0.000	0.000
Employed	-0.289 ***	0.026	0.007	0.055	-0.262 ***	0.030	0.004	0.058
Employed x Age			-0.064 ***	0.011			-0.059 ***	0.011
Employed x Age²			0.002 ***	0.000			0.002 ***	0.000
Employed x Child < 6					0.018	0.059	-0.012	0.061
Employed x Child 6-12					-0.126	0.068	-0.085	0.068
Employed x Child 13-18					-0.357 ***	0.092	-0.269 **	0.094
Child < 6	0.051	0.027	0.052	0.027	0.032	0.057	0.059	0.058
Child 6-12	0.025	0.030	0.035	0.030	0.129 *	0.063	0.103	0.063
Child 13-18	0.090 *	0.040	0.099 *	0.040	0.385 ***	0.084	0.317 ***	0.085
Married	-0.175 ***	0.025	-0.176 ***	0.025	-0.175 ***	0.025	-0.176 ***	0.025
Education	-0.043 ***	0.005	-0.043 ***	0.005	-0.043 ***	0.005	-0.043 ***	0.005
Log Family Income	-0.013 **	0.005	-0.012 **	0.005	-0.014 **	0.005	-0.013 **	0.005
Black	0.058 *	0.025	0.059 *	0.025	0.058 *	0.025	0.059 *	0.025
Latino	-0.019	0.029	-0.016	0.029	-0.020	0.029	-0.017	0.029
Health Limitation	0.593 ***	0.028	0.577 ***	0.028	0.586 ***	0.028	0.574 ***	0.028
Intercept	1.672 ***	0.075	1.449 ***	0.084	1.668 ***	0.075	1.464 ***	0.085
N	14,671		14,671		14,671		14,671	

* p<0.05, ** p<0.01, *** p<0.001.

CHAPTER SIX: CONCLUSION

I. INTRODUCTION

When first describing the processes through which accumulating social roles might ultimately improve well-being, Sieber (1974) commented specifically on women's desire to combine childrearing and housekeeping with a paid occupation. "[D]espite the likelihood of role conflict for the working mothers, women are seeking a wider role repertoire to increase their resources, privileges and sense of personal worth" (Sieber 1974: 577). In the four decades following Sieber's proposal of a role accumulation perspective, the growth in paid employment among women with children has made the consequences of combining employment and childrearing roles relevant for the majority of American women. This dissertation sought to better understand the consequences of work and family roles by investigating which mothers gain mental health benefits from employment, and the mechanisms through which those benefits accrue.

The presented empirical analyses examined mental well-being by assessing symptoms associated with depression. As a marker of mental health impacted by negative and positive spillover between work and family demands (Goodman and Crouter 2009, McNall, Nicklin and Masuda 2010), depressive symptoms are expected to reflect whether individuals experience a net benefit or strain from engaging in work and family roles on their mental well-being. Though a very high number and frequency of depressive symptoms may reflect the presence of mental illness, the decision to measure variation across the full range of symptom counts means that findings from this dissertation do not lend themselves to making inferences about depression as a mental illness. Instead, findings reflect general mental well-being, capturing distress among those at risk for mental illness as well as for those whose symptoms of depression do not suggest a clinical ailment. By investigating the effects of employment and family roles on a generalized

marker of mental distress, the studies of this dissertation contribute to a fuller sociological understanding of the relationships among employment roles, family roles and well-being.

II. FINDINGS

Employment: A Boost for Mothers' Mental Health

The presented studies were motivated by the observation that research reporting positive effects of employment on women's physical and mental health presented a different characterization of the relationship between women's employment and well-being than did research highlighting the stress associated with work-family conflict. Accordingly, the first question in summing together the findings of this dissertation is whether employment is best characterized as beneficial or harmful for mothers' mental health. Presented evidence indicates that employment is beneficial for women, even those who we might expect to be particularly challenged by conflict between work and family roles. In Chapter Three, I present evidence that when the effect of employment on depression is assessed for mothers at the aggregate, being employed relative to not having a job reduces depressive symptoms. The association between employment and mental well-being extends to mothers faced with the time-intensive care demands of young children. In Chapter Five, I find that even mothers with children under the age of six have significantly fewer depressive symptoms compared to mothers who do not have paid jobs. Overall, these findings align with Sieber's perspective of role accumulation (1974). Despite the competing demands posed by employment and childrearing, women who combine employment with mothering tend to have fewer depressive symptoms compared to mothers who do not have paid jobs.

Findings from this dissertation that the benefits of employment for women are conditioned by parenthood also help to reconcile research highlighting the stress of combining employment and family care with research emphasizing the benefits of employment. Though employment generally improves mothers' mental health, my findings indicate that mothers experience fewer mental health gains from employment compared to women without children. In Chapter Five, results indicate that for women, young children reduce the protective effect of working for pay. Children also reduce the mental health benefits of earnings. In Chapter Four, results indicate that greater shares of relative spousal earnings are associated with improved mental health for married childless women who earn less than their spouse, but that the protective effects of greater earnings shares do not extend to mothers. In sum, the mental health benefits of employment, and the boost in relative spousal earnings employment confers, are greater for childless women than they are for women who combine wage-earning with childrearing. Thus, findings also support role strain perspectives (Goode 1960, Marks 1977) by suggesting that employment, and the resources it provides, have limited benefits for mothers relative to childless women.

Conditions and Mechanisms

This dissertation sought to investigate the mechanisms and conditions through which employment benefits mothers' mental health by drawing on multiple theoretical perspectives, including symbolic interaction perspectives on social roles and identity, perspectives on resources and household bargaining, and the life course perspective. Doing so improved understandings of when employment is most beneficial for women's mental health. At the same

time, findings from each empirical chapter contributed to building more nuanced theories for understanding how and when employment improves well-being.

The first study, presented in Chapter Three, examined if gender attitudes moderate the effect of employment on changes in depressive symptoms. Drawing on symbolic interaction and identity theories, I argue that the benefits of accumulating multiple social roles should vary according to individuals' interpretation of those roles. Results indicate that at age 40, employment confers the greatest mental health benefits to mothers who report the most skepticism about the compatibility of employment and childrearing. These findings suggest that in light of employed women's disproportionate share of caretaking labor and limited employer supports for childrearing responsibilities, combining the roles of employment and motherhood is most beneficial for women who expect the responsibilities of employment and mothering to conflict.

My finding that women with traditional gender attitudes reap the greatest mental health benefits of employment is best understood in light of scholarship on the family and employment as gendered institutions. Scholars assert that employment firms remain organized around a model that rewards employees who can be completely devoted to paid care, and that the organization of the family supports the notion that ideal mothers are devoted to providing direct care for their children (Hays 1996, Padavic and Reskin 2002, Williams 2000). Accordingly, women who expect work and family to compete may experience less stress when work and family demands collide. In contrast, women who view employment and childrearing as more complementary may experience greater role discrepancies, and associated mental distress, when their experience of conflicting work and family role demands departs from expectations for role compatibility.

Findings from Chapter Three encourage scholars interested in the benefits of accumulating multiple social roles to consider how the social institutions in which roles are enacted shapes roles' effects on mental health. Much of the research on the benefits of multiple social roles is informed by the identity accumulation perspective (Thoits 1983). Grounded in the symbolic interaction understanding that the self is produced through the enactment of social roles, the identity accumulation perspective maintains that having more social roles improves well-being by providing multiple identities to guide behaviors and give meaning to the activities of daily life. As delineated by Thoits herself, this process is distinct from Durkheim's linkage of social integration and stable social structures to improved well-being. Whereas Durkheim emphasized the direct effect of stable social structures and norms in promoting well-being, Thoits emphasizes the stabilizing effect of individual's identities (Thoits 1983). Testing between the effects of individuals' identities versus social structure in promoting health is beyond the scope of the analysis presented in Chapter Three. However, the counter-intuitive finding that the social role of employee is most beneficial to women whose attitudes about the incompatibility of work and family roles align with the dominant institutional arrangements of work and family as separate spheres suggests that the effect of identities is at least partially determined by the social structures within which those identities are enacted.

The second empirical study, presented in Chapter Four, investigated if higher relative spousal earnings may be one mechanism through which employment confers mental health benefits for married women. In accordance with resource and bargaining perspectives, findings suggest that childless women who earn less than their spouse experience fewer depressive symptoms as their contributions to household income move towards greater equality with their spouses' contributions. The results also support equity theory, which posits that well-being is maximized

when power is equitably distributed between partners. To the extent that earnings confer marital power, the finding suggests that gains in bargaining power may be one mechanism through which employment improves childless women's mental health.

Yet despite the benefits of greater earnings shares for childless women, my results indicate that relative spousal earnings are less beneficial for mothers' well-being. The lack of evidence that greater relative earnings reduce mothers' depression suggests that relative spousal earnings are not a primary mechanism through which employment benefits the mental health of married mothers. Accordingly, the research encourages greater attention to other resources provided by employment, such as social networks, that impact mental health. The findings also encourage scholars interested in household bargaining and marital power to consider how the social meaning of financial resources influences whether those resources translate to greater decision-making authority and improved well-being.

The final empirical chapter indicates that the benefits of employment increase during earlier periods of the life course, and identifies midlife as a time period when employment is most beneficial for women's well-being. The increasing benefits of employment as women age through the life course to midlife appears to operate via two processes—the aging of children and the aging of women themselves. For women with and without children, employment is more beneficial during middle adulthood compared to when women are in their late twenties. For mothers, there is also suggestion that the benefits of employment increase as children grow older. Though children five years or younger diminish the protective mental health effects of women's employment, mothers of teenage children enjoy health returns to employment that are not statistically different from the benefits enjoyed by childless women.

The study presented in Chapter Five makes contributions to the life course perspective by encouraging life course scholars to consider multiple temporal aspects of social roles, including individual's age during role occupancy, and the age of their children. The presented findings suggest that the structure of aging and mental health remains tethered to the traditionally gendered life course, where parenthood is salient for women's age processes and employment most salient for men's. Accordingly, accounting for multiple time dimensions of social roles, and overlap between the social roles of employment and parenthood, is especially important for understanding women's mental health as they age.

III. THEORETICAL IMPLICATIONS FOR PARENTHOOD AND EMPLOYMENT AS SOCIAL ROLES

Role Accumulation

Taken as a whole, this dissertation's findings on the mental health benefits of employment offer support for the role accumulation (Sieber 1974) perspective that additional social roles enhance well-being. Findings linking employment to improved mental health echo data collected by qualitative scholars that highlights the sense of role loss and mental distress among mothers not working for pay. As one stay-at-home mother who previously worked for pay reported, "My life right now is just all theirs [her children's]. Sometimes it's a depressing thought because I think, 'Where am I? I want my life back...'" (Hays 1996:137).

Yet while findings of employment benefits align with the role accumulation perspective, evidence from this dissertation does not suggest that increasing the total number of social roles necessarily improves well-being. As an additional social role, the role accumulation perspective suggests that parenthood should also improve well-being. However, I find little evidence that the

social role of parenthood improves mental health for most men or women. For example, in Chapter Five, when women of all ages are examined together, estimates of the effect of parenthood on women's depression symptoms are non-significant. For men, there is evidence that children increase depression. The lack evidence in this dissertation that parenthood improves mental health is consistent with existing research (Evenson and Simon 2005). In an analysis of parents by gender, child residence, and stage of parenting, Evenson and Simon (2005) report that there are no instances in which parents have superior mental health than non-parents, or when the effects of parenthood vary by gender. Accordingly, my findings suggest that the impacts of multiple social roles on well-being depend upon the type and combinations of social roles that are accumulated rather than on individuals' total number of social roles.

Role Strain

Though indication of a net mental health benefit from employment for mothers aligns with a role accumulation perspective, role strain perspectives remains valuable for understanding the limited benefits employment confers to mothers relative to women without childrearing responsibilities. In particular, Goode's (1960) theoretical description of the ways individuals act to reduce role strain suggests reasons why motherhood limits the benefits of the employment role. As Goode describes, role strain is managed in two key ways, by limiting the total number of social roles, and by bargaining with other actors to reduce the set of responsibilities required by each role (Goode 1960). Though these strategies may be easily implemented for more flexible social roles, such as being a church member or friend, the social role of motherhood seems especially difficult to exit or alter. Though women may exercise choice in entering into motherhood, the threat of harsh social sanctions makes exiting the motherhood role unlikely for

women. At the same time, the cultural idealization of time-intensive parenting practices (Hays 1996, Lareau 2003) limits women's ability to reduce role demands. Time use data reflects the importance of prioritizing parenting tasks. Compared to non-employed mothers in the 1970s, employed mothers in the early 2000s appear to have reduced personal, sleep, and leisure time, as well as time spent with their spouse and friends, in order to preserve time with their children (Bianchi, Robinson and Milkie 2006).

Parenthood and Employment as Gendered, Interactive Social Roles

Results from this dissertation encourage considerations of the ways in which social roles are gendered. Notably, conceptualizing gender as a set of masculine and feminine roles has been critiqued by those advocating the recognition of multiple types of masculine and feminine behaviors (Connell 1987), gender as an ongoing performance (West and Zimmerman 1987), and gender as a multi-level institutionalized system (Ridgeway and Correll 2004). On one hand, my findings discourage a gender role approach that might lead to generalizations about the effects of employment and earnings for all women or men. Results from Chapter Four suggest that the combined effects of gender and parenthood, rather than gender alone, are salient for differentiating the effects of earnings between men and women. Yet on the other, my finding that gender continues to condition the effect of combining employment and parenthood encourages attention to gender differences in role expectations, behaviors, and responsibilities. Komarovsky (1992) argues that as a theoretical construct, gender roles are particularly well-suited for analyses linking individuals to social institutions (Komarovsky 1992). My research supports her argument, as I find value in considering how the effects of engaging in employment and family institutions vary for men and women.

The presented research suggests that parenthood and employment roles are interactive, meaning that each social role moderates the mental health effect of the other. I find that though parenthood as a single social role has limited effects on well-being, having a child moderates the benefits of employment in gender-specific ways. For women, parenthood reduces the mental health benefits of being employed relative to not having a job, and also reduces the mental health benefits of relative spousal earnings. In contrast, for men, parenthood increases the protective effects of employment and greater relative spousal earnings against symptoms of depression. These findings align with scholars' claims that the social institutions of employment and family generate contradictory role expectations for women, and that expectations for employees to be unencumbered by family caregiving responsibilities especially marginalize mothers (Hays 1996, Williams 2000).

The dampening effects of motherhood on employment's mental health benefits appear to reflect the challenges women face in simultaneously performing employment and parental roles. In delineating the processes of social role performance, Goffman describes that to create convincing role performances, individuals must draw their audience's attention to the behaviors that conform to a given role, and hide behaviors that conflict with the broader social consensus for expected role behavior. Acting in discordance with expected role behaviors is expected to increase discomfort, for actors and their audience (Goffman 1956). For men, the social expectation for fathers to be breadwinners means that the social roles of parent and employee can be performed at the same time, with the actions for each role enhancing the performance of the other. For women, the linkage of mothering to unpaid caregiving means that overlap in parental and employment roles serves to discredit the performance of each. Accordingly, men's joint performance of employment and parental roles enhances the mental health benefits of

employment, while women's joint performance of parental and employment roles limits employment's benefits for well-being.

IV. FUTURE RESEARCH

Further Investigations on the Joint Effects of Parenthood and Employment

Conceptualizing parenthood and employment as interactive rather than discrete social roles may be useful for future research seeking to understand gender inequalities in depression. While evidence of gender disparities in mental health (Culbertson 1997, Piccinelli and Wilkinson 2000, Roxburgh 2009) helped to motivate this dissertation's focus on depressive symptoms, the studies of this dissertation do not investigate gender differences in depression, or the contribution of employment and parental roles to gendered health inequalities. In recent decades, attention on inequality in the labor market has turned away from gender per se towards the gender-specific career impacts associated with the bearing and rearing of children (Anderson, Binder and Krause 2002; Budig and England 2001, Budig and Hodges 2011, Correll et al. 2007, Pettit and Hook). Similarly, there may be much to learn about gendered health disparities by looking beyond gender alone in favor of examining the gender-specific effects of parenthood on well-being.

Findings from this dissertation on the conditions and mechanism through which employment impacts women's depression also encourage new scholarship for better understanding the ways employment improves mental health. In regards to gender attitudes, cross-cultural research and research that accounts for variations in employment firms may prove valuable for disentangling the effects of gendered social structures from individual women's attitudes about the compatibility of employment and childrearing. In regards to the effects of relative spousal earnings, use of data with mental health measures for spouses would allow for better tests of

resource and equity theories. Equity in marital power is expected to improve the mental health of both partners, and control over resources is expected to impact both spouses' well-being. Given that parenthood appears to increase the saliency of gendered breadwinning norms, there is reason to suspect that the relationship between earnings shares and couples' joint mental health is impacted by parenthood as well.

Finally, there is room for further investigation into the longitudinal associations between time out of the labor force and mental health. This study made use of longitudinal data to control for prior depression and examine changes in depression symptoms over time, but did not explore employment pathways over time. Existing research points to employment instability as particularly detrimental for well-being (Frech and Damaske 2012). Other recent scholarship finds little evidence that duration of employment impacts well-being, and instead highlights the importance of current employment status and the timing of labor force transitions for shaping mental health (Wheaton and Reid 2008). Yet evidence that mothers' time away from employment reduces later wages (Budig and England 2001) suggests that gaps in employment may continue to impact well-being indirectly via lowered earnings or occupational prestige long after women have re-entered the paid labor force. Educational variations in the likelihood of employment gaps (England, Paula, Carmen Garcia-Beaulieu and Mary Ross 2004) and in the wage penalty for motherhood (Budig and Hodges 2010) suggest that the direct and indirect effects of labor force gaps on mothers' mental health may vary by socioeconomic class. Accordingly, examining parenthood and employment as interactive social roles may tell us as much about mental health inequalities across women as it does about inequalities between women and men.

Considering Younger Cohorts

The presented findings on employment, motherhood and mental well-being are gleaned from data from 1979 National Longitudinal Survey of Youth, which followed the youngest members of the Baby Boom Cohort from 1979 to the present day. Given the cohort's temporal location as the first cohort raising children during an era where the majority of mothers were employed, sampled mothers may have been especially vulnerable to competing normative demands for the performance of employment and mothering roles. Accordingly, a primary limitation of this study is that it does not examine the mental health consequences of employment for women currently entering into parenthood. This limitation makes comparisons between the 1979 cohort followed in this study and younger cohorts of parents a key area for future research.

In some respects, younger cohorts of mothers may feel less conflict between the social roles of employment and motherhood. Today's young parents were likely raised in households where their own mothers devoted a greater portion of time to paid employment compared to the mothers of young adults coming of age in the 1970s (Bianchi, Robinson and Milkie 2006), and are also likely to view mothers' employment favorably (Gerson 2010). Gerson reports that despite noting the stress their own parents experienced in attempting to balance employment with family care, the majority of young adults describe egalitarian work and family arrangements as ideal (Gerson 2010). Similarly, among women of childbearing age, valuing parenthood is positively related to valuing occupational success (McQuillan et al. 2008), a finding that contrasts with earlier arguments that the social roles of motherhood and employment are culturally incompatible (Hays 1996). Findings from this dissertation, presented in Chapter Three, caution against assuming that egalitarian ideals at the individual level facilitate employment's mental health benefits. However, the effects of broad social support for egalitarian work and

family ideals may differ, encouraging comparisons of the effects of employment for the 1979 cohort to today's parents.

There are other reasons to be skeptical that work and family roles are more easily balanced by today's mothers. Theoretical perspectives posit that role strain is managed by curtailing role activities (Goode 1960). Despite shifts towards more egalitarian gender attitudes (Pampel 2011), the continued slow pace of change in the gendered division of household and childrearing labor (Bianchi et al. 2012) suggests that today's mothers continue to be burdened by time-intensive family role demands. Additionally, as described in the introductory chapter, the present time period is marked by a high degree of economic instability and inequality across families. Paired with reduced public financial support for unmarried mothers in the form of welfare, these economic trends suggest that compared to the 1979 NLSY cohort, today's young mothers have especially limited financial resources to aid in managing role demands. As a result, they may be less able to reduce employment hours or outsource domestic and childrearing labor in response to role strain.

V. CONCLUDING REMARKS

The task of managing employment and family demands is one the majority of women face. For many mothers, whether one is employed or provides full-time care for children is a restricted choice at best, shaped by the availability of childcare, employment options, potential earnings, and supportive partners. When describing their employment status, women tend to describe their decision to work for pay or devote themselves to unpaid childrearing and domestic labor at home as the arrangement that best meets the needs of their families, rather than the arrangement that best suits their personal desires (Damaske 2011, Hays 1996). As Damaske describes, "...staying

at home continues to suggest altruism, while working suggests selfishness, particularly for well-off women” (Damaske 2011: 147).

Given the current cultural saliency of unpaid caregiving labor and self-sacrifice as markers of good mothering, it is worth accompanying discussions of women’s employment and mental health with the note that mother’s and children’s well-being are intertwined. For example, mothers’ depression increases children’s problem behaviors, even after controlling for the external conditions jointly experienced by mothers and their children (Turney 2011). Such findings give credence to the Southern folk adage “if Momma ain’t happy, ain’t nobody happy.” Accordingly, a full understanding of the ways in which employment impacts women’s well-being is valuable for scholars interested in understanding the health effects of social roles, as well as for women seeking to navigate pathways of employment that maximize well-being for themselves and their families.

The research presented in this dissertation points to both the well-being benefits of employment for mothers, and to the limits gendered parental role expectations impose on those benefits. Other gender scholars have observed that violating gender norms induces a period of “gender vertigo” (Risman 1998), or discomfort as the social scripts governing social interaction are disrupted (Goffman 1956). Results of these studies appear to reflect the social discomfort that accompanies departures from expected role performances. The empirical studies present a repeated pattern of employment benefits, paired with evidence of restricted gains for mothers who seek to simultaneously fulfill employment and parenting roles. The first study indicated that employment benefits most women, yet confers no benefits to women who hold more egalitarian gender ideals. The second study found that gains in relative spousal earnings improve well-being for childless women, but that those gains are not enjoyed by mothers. The final study indicated

that while men and women both experience a mental health boost from employment, the benefits of women's employment are significantly curtailed in the presence of young children.

Yet despite evidence of limited benefits, findings from this dissertation suggest that mothers' mental health gains from employment trump the stress of work-family role conflict. In doing so, they affirm Sieber's (1974) assertion that role accumulation might be more gratifying than stressful. On average, employment is associated with improved well-being for the youngest Baby Boom mothers, a cohort distinct in history as the first cohort where the majority of mothers worked for pay. While the social norms governing paid employment and family care have been slow to change, they are not historically or culturally ubiquitous (Hays 1996, Padavic and Reskin 2002). Thus, there is room for optimism about the current limitations motherhood imposes on the mental health benefits from employment, as further gains might one day be realized.

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