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Reevaluating The Parenting Wellbeing Gap: Evidence From The Wellbeing Module Of The American Time Use Survey

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REEVALUATING THE PARENTING WELLBEING GAP: EVIDENCE FROM THE
WELLBEING MODULE OF THE AMERICAN TIME USE SURVEY

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DEDICATION

To my parents, Eliza and Mitica Negraia who showed me how to cross the street in first grade and from that moment onward expected me to figure it out. Their unconditional trust and support have been the engines of my motivation and resourcefulness. To my siblings Gigi, Octavian, Mircea and Maria for being my friends, bank account and source of (sometimes unsolicited) advice no matter on what continent I was living. To my husband, Timothy, whose firm belief that my contribution to the field is important, kept me going when results were slow to materialize. To my parent's in law, Veldon and Karen, for always being in "our corner". And to my daughter, Amalia, whose birth redefined the way I organize and value my time.

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Special gratitude and appreciation goes to my dissertation chair and mentor Jennifer March Augustine for believing in my scholarly abilities, for serving as a role model, and for all the time and energy she has dedicated to my training. I owe many of my accomplishments to her work and guidance.

ABSTRACT

Both scholars and the public have been intrigued by the question of whether parents experience higher levels of emotional wellbeing than adults who are not raising children. Yet despite decades of research on the topic, the answer to this question remains unclear. Using a novel source of nationally representative data, the Wellbeing Module of the American Time Use Survey (2010, 2012, 2013), this dissertation aims to unpack and extend prior understanding of the parenting wellbeing gap by pursuing two studies. The first investigates whether parenthood may have both positive and negative links to adults' emotional wellbeing; whether the gap varies across certain contexts; and whether it is driven by women more so than men. I find that parents experienced more positive affect than adults who are not raising children, but also more negative affect. This pattern, however, only existed during nonmarket work, and leisure—not during paid labor. Interestingly, parenthood exacerbated positive emotions only during time when parents were in the presence of children, but it heightened negative emotions during all time, regardless of whether children were present or not. Patterns were generally the same for men as women. In the second study, I explore whether parenting is experienced differently by adults with higher or lower education levels. I find that raising children is associated with greater levels of positive emotions (happiness and meaning) across education groups, but it is also associated with greater levels of negative emotions (stress and fatigue) only for higher educated parents. When considering the role of gender, for high SES individuals, parenthood is associated with greater levels of positive and

negative emotions for both men and women, while at the low SES level, parenthood makes no difference in negative emotions (for either men or women) and increases positive emotions only for men.

TABLE OF CONTENTS

DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
LIST OF TABLES	ix
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER 1: INTRODUCTION	1
CHAPTER 2: STUDY 1	4
2.1: A CRITICAL REVIEW OF PRIOR RESEARCH ON THE PARENTAL WELLBEING GAP	7
2.2: SUMMARY OF STUDY	15
2.3: METHODS	16
2.4: RESULTS	23
2.5: DISCUSSION	30
ENDNOTES	39
CHAPTER 3: STUDY 2	49
3.1: A CRITICAL REVIEW OF PRIOR RESEARCH ON PARENTAL WELLBEING AND SES	51
3.2: THEORETICAL BACKGROUND	54
3.3: METHODS	62
3.4: RESULTS	68

3.5: DISCUSSION	76
CHAPTER 4: CONCLUSION	96
REFERENCES	100
APPENDIX A: SUPPLEMENTARY MATERIAL, STUDY 1.....	128

LIST OF TABLES

Table 2.1 Characteristics of Study Sample (Mean / % (SD) for Parents, Other-adults and Full Sample	40
Table 2.2 Activity-level Weighted Means of Affective Wellbeing during All Time for Parents, Other-adults and Full Sample.....	41
Table 2.3 Affective Wellbeing Gap between Parents and Other-adults during All Time	42
Table 2.4 Parent's Time Use by Activity Type and Child Presence	44
Table 2.5 Affective Wellbeing Gap between Parents and Other-adults by Child Presence	45
Table 3.1 Characteristics of Study Sample (Means and Percentages) by Education Level	83
Table 3.2 Means for Affective Well-being Measures by Adult's Parenting Status and Education.....	84
Table 3.3 Affective Wellbeing during All Time for Full Sample.....	85
Table 3.4 Affective Wellbeing during All time for Women.....	87
Table 3.5 Affective Wellbeing during All time for Men	88
Table 3.6 Affective Wellbeing during All Time for Partnered Mothers	89
Table 3.7 Affective Wellbeing during All Time for Nonresidential Fathers.....	90
Table A.1 Study Information and Summarized Results for Studies Comparing Parents and Nonparents	129
Table A.2 ATUS Codes for Each Activity	136
Table A.3 Affective Wellbeing Gap between Parents and Other-adults by Activity Type	137

Table A.4 Affective Wellbeing Gap (Parents - Other-adults) Respondent's by Gender during Time when Child may be Present.....	139
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Table A.5 Affective Wellbeing Gap (Parents - Other-adults) by Respondent's Gender during Time when Child is Not Present.....	140
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LIST OF FIGURES

Figure 2.1 Affective Wellbeing Gap between Parents and Other-adults by Activity Type	46
Figure 2.2 Affective Wellbeing Gap between Parents and Other-adults by Respondent's Gender during Time when a Child may be Present	47
Figure 3.1 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Full sample	91
Figure 3.2 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Women	92
Figure 3.3 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Men	93
Figure 3.4 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Partnered Mothers	94
Figure 3.5 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Nonresidential Fathers	95

LIST OF ABBREVIATIONS

SES.....Socioeconomic Status

CHAPTER 1

INTRODUCTION

Whether to become a parent or not is arguably one of the most important and permanent decisions an individual can make in their life. In the U.S., over 80% of adults will eventually make this transition and become parents. Because in the 21st century the value of children for their parents is no longer economic, scholars have argued that, from a rational perspective, if adults continue to have children then children must have an emotional value for their parents (Morgan and King 2001; Zelizer 1994). At the same time, in recent decades, a growing number of adults are challenging the status quo and expressing intentions of not having children (Livingston, Gretchen, and D’Vera Cohn 2010). Thus, if children are supposed to make people happy, then why are other adults forfeiting this opportunity? This puzzle has fueled the interest of scientists across disciplines in better understanding what the experience of parenting (vs. not parenting) means for adults’ wellbeing. However, despite decades of work on this topic, the debate continues. Most older work finds that parenting is detrimental to wellbeing, while more current evidence suggests that parenting is a mixed bag associated with both rewards and costs to adults’ wellbeing (for a review see Hansen 2012; Nelson, Kushlev, and Lyubomirsky 2014; Umberson, Pudrovska, and Reczek 2010).

Following an extensive and systematic review of previous literature, this dissertation project has identified several important gaps in our current knowledge on

parenting and wellbeing and sets to address these gaps in two studies. The first study of this dissertation tests the idea that the wellbeing returns to parenthood are “a mixed bag” by using data from a contemporary, nationally representative sample of Americans and examining if parents experience both more positive and more negative emotions in their daily lives compared to adults not raising children. Drawing on previous work, the first study also explores if parental wellbeing varies across contexts: during specific activities (i.e., market work, nonmarket work and leisure), and in the presence of their children. Acknowledging that the experience of parenting may be different for men and women, the first study also tests if the observed patterns vary across genders. The second study of this dissertation builds on the findings from the first study and focuses on the role of individuals’ socioeconomic status for parental wellbeing. Like gender, SES plays an important role in the amount and type of resources, challenges and opportunities that individuals encounter in their daily lives. Because parenthood is a complex role, the type and intensity of the costs and benefits associated with it are likely to vary depending on parents’ SES membership. Understanding how parenting is experienced at different SES levels is a relevant and timely question that can help us also better understand fertility behaviors for various SES groups; for example, why low SES individuals have children despite their unfavorable economic circumstances; or why do some members of higher SES groups choose to remain childless if children are supposed to increase happiness.

In the next chapter (i.e., Chapter 2) I describe Study 1, including all aspects of the theory, methods, results, and discussion. Then, in Chapter 3, I present Study 2 following the same structure as Study 1. Chapter 4, and the final chapter of the dissertation, includes the conclusion and ideas for future research. Tables, Figure and Notes for each

study are presented at the end of their designated chapter. References and Appendixes are presented, jointly, at the end of the entire document.

As a final note, I want to state that while this dissertation is being presented as the sole-work of the author, there is a co-authored version of this work (with Dr. Jennifer March Augustine) that is currently under review (revised and resubmitted) at American Sociological Review, and another co-authored paper with Dr. Augustine that is being prepared for submission to the Journal of Marriage and Family.

CHAPTER 2

STUDY 1

Over the past half a century, the prevalence and acceptance of childlessness in the U.S. has increased (Livingston et al. 2010; Koropeckyj-Cox and Pendell 2007a). At the same time, Americans' beliefs that raising children is "one of life's greatest joys" remains strong, as does non-parents' sense of stigmatization (Hansen 2012). This seeming incongruity between changes in family life and enduring cultural ideals of the family has motivated scholars from across disciplines to attempt to resolve the question of which group enjoys higher levels of emotional wellbeing: parents, or adults without children. Importantly, this question is not simply an academic curiosity. It has vast cultural, social, and policy significance as well. For example, evidence that parents have greater emotional wellbeing than non-parents would help to bolster support for pro-natalist policies, such as those that aim to promote historically low rates of fertility in the U.S. (Martin, Hamilton, and Osterman 2017). Evidence to the contrary would help to breakdown assumptions about parenthood that underlie the stigmatization of non-parents and lend support for policies that help parents to better balance work and family obligations. Unfortunately, despite the vastness of the literature examining the question of whether parents or non-parents have higher levels of emotional wellbeing, a lack of consensus remains.

Within this field of study, a larger share of the literature on parent's wellbeing suggests that parenthood is associated with lower levels of emotional wellbeing compared to non-parents. Studies which support this perspective document parents' higher levels of depression, anxiety, anger, and stress than non-parents, and their lower levels of happiness, marital satisfaction and overall life satisfaction (Alesina, Di Tella, and MacCulloch 2004; Bird 1997; Di Tella, MacCulloch, and Oswald 2003; Evenson and Simon 2005; Galinsky, Bond, and Friedman 1996; McLanahan and Adams 1989; Ross and Willigen 1996; Twenge, Campbell, and Foster 2003; Umberson and Gove 1989). These findings have been collectively represented in the literature as the "parenting wellbeing gap" (see Nelson et al. 2014; Umberson and Gove 1989; Umberson et al. 2010). Yet, there also exists a contrasting, albeit smaller, body of studies which find that parents experience more happiness, meaning, life satisfaction, and social interaction than adults without children (Herbst and Ifcher 2016; Nelson et al. 2013; Nomaguchi and Milkie 2003), as well as there being a handful of studies that find no association between parental status and emotional wellbeing (Barnett, Marshall, and Pleck 1992; Rothrauff and Cooney 2008). To further complicate the matter, this literature also draws on data from a variety of eras, methodologies, and measures of wellbeing (which I highlight and delineate in Appendix A; for an additional review see Nelson et al. 2014), that may explain, in part, the mix of findings. Thus, in order to help tease apart a complex and somewhat contradictory body of literature, a new approach needs to be taken. In this dissertation project, I do just that by drawing on a source of data, the American Time Use Survey (ATUS: 2003-2016), which provide a fresh avenue for examining the 'parental wellbeing gap'.

The primary novelty of the ATUS in comparison to data used in the vast majority of prior studies is that it includes assessments of how respondents felt in specific activities along multiple dimensions of emotional wellbeing (e.g., happiness, meaning, stress) during a 24-hour period, rather than a singular global assessment (e.g., “taken all together, would you say that you are very happy, pretty happy, or not too happy?”). Such ‘experienced measures’ of wellbeing have the key advantage of allowing me to examine both positive *and* negative dimensions of emotional wellbeing, rather than just one; as well as how each of these dimensions varies across contexts defined by what the respondent was actually doing (for example, working for pay versus leisure) and who was present (such as children). They also demonstrate greater reliability than global assessments have been found to do (Kahneman and Krueger 2006; Kapteyn et al. 2015; Krueger and Schkade 2008; Krueger et al. 2009; National Research Council 2012). Additionally, the contemporary and nationally representative aspects of the survey allow me to avoid problems associated with older or non-representative data, in which parental wellbeing is likely to reflect variations in structural and cultural factors affecting parents and non-parents’ experiences (Glass, Simon, and Andersson 2016; Herbst and Ifcher 2016). I can also assess whether any observed disparities between parents and non-parents’ emotional wellbeing are the same for women, who disproportionately bear the costs of parenthood (Bianchi, Robinson, and Milkie 2006) but may also experience more of its rewards, as they are for men. In the section that follows, I describe these strengths in relation to prior research in greater detail, and how they help me to refine and clarify how a central aspect of social life—parenting—affects wellbeing in the modern era.

2.1 A CRITICAL REVIEW OF PRIOR RESEARCH ON THE PARENTAL WELLBEING GAP

Data Drawn from Earlier Eras

Among the existing studies on parental wellbeing, a substantial portion are based on data drawn from the 1970s, 80s and 90s (see reviews by Hansen 2012; Nelson et al. 2014; and Umberson et al. 2010). For example, the most widely used source of data for studying parental wellbeing, the National Study of Families and Households (NSFH), is largely representative of U.S. parents and non-parents in the late 80s and early 90s. Although the NSFH data has been a valuable data source for research on parental wellbeing by providing evidence that has generally favored the existence of a parental wellbeing gap, it also lacks representativeness of today's U.S. population in terms of its demographic composition (e.g., education, age at first birth, race/ethnic distribution) and the characteristics of adults who do and do not raise children; nor does it reflect changing cultural norms around being childless (Herbst and Ifcher 2016; Koropeckyj-Cox and Pendell 2007a). Thus, if many parents in the past preferred not to have children but felt pressured to do so because of social norms, older data would likely show a larger parenting wellbeing gap than more contemporary data. Alternately, if not having children was more stigmatized in the past than it is today, older data may suggest that adults without children have lower levels of emotional wellbeing than parents.

Of course, it is difficult to adjudicate between these two possibilities. As such, it is essential that new studies rely on more contemporary sources of data, such as the ATUS, which was drawn annually from a nationally representative sample of Americans from 2003 to 2016. Although the ATUS has been used in recent studies to study the

wellbeing of parents (Connelly and Kimmel 2015; Musick, Meier, and Flood 2016), to my knowledge, it has yet to be used to examine issues of the parental wellbeing gap.

Measurements of Emotional Wellbeing

In addition to drawing on older sources of data, most prior studies on parental wellbeing relied on *evaluative* wellbeing measures that appear in many large-scale surveys (e.g., General Social Survey; National Study of Families and Households; Health and Retirement Study; World Value Survey; and Gallup Healthways Wellbeing Index Survey). Evaluative measures are global assessments of wellbeing, generally considered in terms of satisfaction or happiness (Kahneman and Krueger 2006; Krueger and Schkade 2008; Robinson and Clore 2002). For example, a common measure of evaluative wellbeing is based on the question: “All things considered, how satisfied are you with your life as a whole these days?”. Although such measures have been shown to be reliable predictors of a number of different outcomes—including future decision making (e.g., leaving a job (Freeman 1978); recovery from illness or injury (Cohen et al. 2003; Kiecolt-Glaser et al. 2002); emotional states (Urry et al. 2004); and prosperity (Diener, Kahneman, and Helliwell 2010; Helliwell et al. 2014; Radcliff 2013; Tay, Herian, and Diener 2014))—they also suffer from several limitations.

One of these limitations is lower levels of intra- and inter-reliability. For example, test and retest methods of assessing the reliability of global measures have produced correlations in the range of 0.40-0.67, even when asked twice within the same session. Such estimates are lower than what scholars would expect, given the stable nature of the concept (Andrews and Withey [1976] 2012; Kammann and Flett 1983; Kapteyn et al. 2015; Krueger and Schkade 2008). Scholars argue that these issues of reliability reflect

the fact that global measures are retrospective evaluations based on a “a non-systematic review of one’s life” (Krueger and Schkade 2008:1843). There is also evidence that they are sensitive to long-term aspirations, dissonance reduction (i.e., how I should be feeling), social desirability (i.e., what I think I should say I am feeling), survey question ordering (Strack, Martin, and Schwarz 1988), current mood (Schwarz and Strack 1999), and transient context influences such as the weather (Schwarz and Clore 1983).

Such limitations highlight the need for alternative approaches to assessing emotional wellbeing. On this front, there has been substantial progress based on the insight that researchers can have “a more accurate gauge of actual feelings if they are reported closer to the time of, and in direct reference to, the actual experience.” (Kahneman and Krueger 2006:4). This insight has prompted the development of *experienced* measures of wellbeing, such as those included as part of the ATUS, which are based on the Day Reconstruction Method (DRM) (Kahneman et al. 2004). In this method, respondents provide a time diary about the activities in which they engaged in the previous day and then report on how they felt during different activities. Although the DRM design relies on memory, it was shown to produce results consistent with more rigorous, but also more costly methods; particularly, the Experience Sampling Method (ESM), which prompts respondents throughout the day to report on what they are doing and how they are feeling (Csikszentmihalyi and Larson [1987] 2014; Kahneman et al. 2004; Stone, Shiffman, and DeVries 1999). Reliability tests for measures based on experienced methods score in the upper range of what has been found for single-item evaluative measures (Krueger and Schkade 2008; Steptoe, Wardle, and Marmot 2005).

Beyond issues of reliability, experienced measures also capture a distinct aspect of emotional wellbeing, from what evaluative measures assess, and which has not been well represented in the literature. This distinction is highlighted by the findings that evaluative and experienced measures of wellbeing are only modestly positively correlated (Headey, Kelley, and Wearing 1993; Kahneman et al. 2004), as well as factor analyses revealing that *evaluative* measures form one factor, but *experienced* measures form two factors: one that reflects positive feelings, and one that reflects negative feelings (Kapteyn et al. 2015). This knowledge suggests that evaluative measures typically framed in terms of positive assessments cannot be taken as an inverse (or lack of) negative emotions, but rather, individuals can experience both positive and negative emotions simultaneously (Tuccitto, Giacobbi, and Leite 2010; Watson, Clark, and Tellegen 1988). The ATUS measures of experienced wellbeing, which assess both feelings of positive affect and negative affect *in the same activity*, allow me to capture this critical nuance.

The Importance of Studying Positive and Negative Emotions

Although the experience of parenting is often described in extreme terms—such as the “watching children grow is life’s greatest joy” (Koropecykj-Cox and Pendell 2007a), or the “end to fun” and sexual and emotional intimacy with one’s partner (Senior 2014), most scholars recognize that parenting is likely a mixed bag of experiences that affects emotions in both positive and negative ways (Nelson et al. 2014; Nomaguchi and Milkie 2003; Simon 2008; Umberson and Gove 1989). There has been little empirical work, however, delineating these negative and positive dimensions of parental wellbeing. The few exceptions include work by Umberson and Grove (1989) and Nomaguchi and Milkie (2003), although these studies used data collected several decades ago; Kapteyn

and colleagues (2015) and Nelson and colleagues (2013), but these studies did not use representative samples; and Deaton and Stone (2014), although this study relied on data that asked respondents to generalize how they felt along various dimensions the previous day, not in relation to specific activities—a critical issue I unpack more in the next section.

On one hand, I expect that parents will be happier than non-parents because children provide a source of human relations, unconditional love, and closeness (Augustine, Nelson, and Edin 2009; Edin and Kefalas [2005] 2011); expand parents' social networks by reviving old relationships and forming new connections with family, neighbors and friends (Nomaguchi and Milkie 2003); and often entertain, amuse, invoke feelings of pride and joy, and provide a source of fun (Nelson et al. 2014). I also expect that parents will report more meaning (Nelson et al. 2013; Umberson and Gove 1989)—which is conceptually distinct from happiness, the former reflecting pleasure attainment, the latter personal functioning and achievement (Ryan and Deci 2001)—because parenting provides adults with the opportunity to pursue and achieve a variety of goals (e.g., providing a moral education) (Delle Fave and Massimini 2004), to perform a socially valued role (Barnett and Hyde 2001; Thoits 1992), and to engage in an array of activities (e.g., teaching a lesson, saving for education or a family home) that are perceived as challenging and thus meaningful (Csikszentmihalyi 1990).

At the same time, I anticipate that parents will experience more negative emotions than non-parents. They may experience greater stress because they experience more financial demands (e.g., due to child care, schooling, housing) (Ross and Willigen 1996; Warren and Tyagi 2004); worry (e.g., about their child's safety, school performance, or

health) (Crnic and Low 2002; Eccles 1999; McLanahan and Adams 1989; Miller and Sollie 1980); and struggles to meet the time demands of modern day parenting while dealing with the demands of domestic work and paid work (Bianchi 2000; Gerson and Jacobs 2004; Kimmel and Connelly 2007; Milkie et al. 2004; Sayer 2005). They will also experience more fatigue than adults without children as a consequence of these factors, as well as more sleep disturbance and less available time for leisure activities (Elek, Hudson, and Fleck 2002; Gay, Lee, and Lee 2004; Lee, Zaffke, and McEnany 2000). Finally, parents will experience more sadness due to feelings of disappointment, stemming from their performance as parents or their unfulfilled expectations of their children (Mintz 2004).

The Significance of Context

Such research highlights the possibility that parents experience greater negative and positive emotions, but they do not tell us whether these emotions are experienced at the same time, whether they are experienced to the same degree at *all times*, or how they are connected to contextual factors. Such knowledge is also a critical part of understanding both the existence, and substantive experience, of the parental wellbeing gap. The ATUS measures (given the use of the Day Reconstruction Method), allow me to consider such unexplored complexities as well.

Inspired by ecological models of human behavior, social context, and in particular what parents are doing and whether children are present when they are doing it, has been recently incorporated into research on the emotional wellbeing of parents. For example, recent studies found that parents are happier when they are with children than when they are not with their children (Connelly and Kimmel 2015; Musick et al. 2016; Nelson et al.

2013). Another found that parents are happier when they are engaged in leisure activities than when they are doing caretaking activities (Offer 2014). Scholars have yet to incorporate, however, such aspects of context into examinations of how the emotional wellbeing of parents compares to non-parents. As such, I also examine the “parental wellbeing gap” across three contexts—market work, nonmarket work, and leisure—which besides sleep, are the most common activities of people’s daily lives and reflect the largest share of their time, as well as how it is conditioned by the presence or absence of children.

In the context of *paid labor*, work-family conflict is a well-documented phenomenon that may exacerbate parents’ negative feelings (Bianchi et al. 2006; Jacobs and Gerson 2004; Simon 1992). Yet many parents may also find refuge in paid work from the demands at home (Hochschild 1997), relish in the opportunity to interact with other adults and feel a greater sense of purpose in the face of home-related frustrations (Damaske, Smyth, and Zawadzki 2014). Thus, I expect that the parenting gap in positive emotions observed in other studies will not exist while adults are in paid work, but parents may still feel more stress and fatigue than non-parents during paid work. Likewise, during *nonmarket work*, parents—who tend to do more extensive nonmarket work (including activities such as cooking, cleaning, and running errands), which is generally regarded as more unpleasant than most other activities—will experience more negative emotions than non-parents (Bianchi et al. 2006; Jacobs and Gerson 2004; Kahneman and Krueger 2006), but they may also report higher levels of happiness and meaning during unpaid work because it is perceived as for the benefit of their children. During *leisure*, I expect that parents will report more positive emotions than non-parents

because they view leisure as a scarce resource and thus, time in it is seen as more valuable and enjoyable (Cialdini 1987), but I expect few differences in negative emotions by parental status.

As to the role that children's presence plays, as mentioned earlier, parents tend to report more happiness and meaning during the time they spend with their children than during other parts of the day (Connelly and Kimmel 2015; Musick et al. 2016; Nelson et al. 2013), but they may also feel more stressed when children are present than when they are absent (Campos et al. 2013). It is also intuitive that certain activities such as nonmarket work would be more stressful and tiring when done while caring for children. Thus, I expect that the heightened levels of negative emotions that parents experience in nonmarket work compared to non-parents, and the greater levels of positive emotions that they experience during leisure, may depend on whether their children are present. Stated differently, when children are not present, the emotions gap between parents and non-parents in the domains of nonmarket work and leisure may disappear.

Population Variability and the Role of Gender

A final consideration I pay special attention to is whether the patterns observed are driven by women, or whether they can be generalized to men as well. In comparison to men, women take on more housework, childcare, and household management duties (e.g., meeting with teachers; scheduling children's doctor visits); report more interrupted sleep and solo parenting; and have less leisure time, lower pay, and fewer work promotions (Belsky and Rovine 1990; Bianchi et al. 2006; Burgard and Ailshire 2013; Correll, Benard, and Paik. 2007; Mattingly and Bianchi 2003; Mattingly and Sayer 2006; Maume, Sebastian, and Bardo 2009; Nomaguchi, Milkie, and Bianchi 2005; Sayer 2005;

Twenge et al. 2003). As such, it may be women who are driving the associations between negative emotions and parental status. At the same time, because motherhood represents a more salient identity for women than for men, and women without children may experience more stigma or ambivalence about their childless status than men without children, the parenting gap in positive emotions may also be driven by women (Koropecj-Cox and Pendell 2007b).

2.2 SUMMARY OF STUDY

This study aims to tease out and extend prior understandings of the parenting wellbeing gap by taking five steps: 1) using data from a contemporary, nationally representative sample of Americans; 2) drawing on experienced assessments of affective wellbeing tied to time diary data, 3) capturing both positive and negative emotions; 4) considering variation in the parenting wellbeing gap across two contexts—specifically, types of activities, focusing on market work (i.e., paid labor), nonmarket work (i.e., domestic work), and leisure, and whether children are present; 5) and examining whether differences in parents’ and non-parents’ wellbeing are observed to be the same for women and men. In doing so, I recognize the dynamic and context specific aspects of how people experience the costs and returns associated with both statuses across the course of their daily activities, and the variation in these costs and returns across subsets of the population (Nelson et al. 2014; Nomaguchi and Milkie 2003).

2.3 METHODS

Data

The American Time Use Survey (ATUS) is a nationally-representative time diary survey conducted annually from 2003 through 2016 (BLS 2017). It was sponsored by the Bureau of Labor Statistics and collected by the U.S. Census Bureau. At each survey wave, a random subset of individuals participating in the Current Population Survey (CPS), which was conducted two to five months prior to the ATUS, was selected to participate in the ATUS and interviewed through computer-assisted telephone interviewing about the duration and type of activities that they participated in over the previous 24 hours (4 a.m. to 4 a.m.). Respondents reported on an unparalleled range of activities, where the activity took place, and who was present. In 2010, 2012, and 2013, the ATUS included the Subjective Wellbeing Module. This module was conducted at the end of the interview, during which participants were asked to rate how they felt along six dimensions—happy, meaning, sad, stressed, pain and fatigued—in three activities which were randomly selected from their time diary. This study draws on five of these six assessments. I exclude the measure of pain, which is used more in studies of disability and lacks a theoretical basis for inclusion in this study. Data were accessed through the ATUS-X Extract Builder system (Hofferth, Flood, and Sobek 2015; <http://www.atusdata.org>).

Sample

The analytic sample for this study was formed by pooling the data at the activity level across the three cross-sectional survey waves (2010, 2012, 2013) in which the Wellbeing Module was administered ($n = 102,796$). I then further restricted the sample to

only include activities conducted by respondents between the ages of 21-50 ($n = 52,036$ activities nested in 17,481 individuals). Doing so resulted in a final analytical sample that included 32,592 activities by 10,942 adults who reported an “own household child (biological or adopted)” younger than 18, and 15,651 activities by 5,265 “other-adults”. Activities by respondents who reported no household children younger than 18 but had an own household child older than 18 ($n = 1,505$), a child younger than age 18 living outside the household ($n = 714$), a co-resident non-own child ($n = 1,405$), a co-resident grandchild ($n = 131$), or a foster child ($n = 38$), were also dropped from the analysis¹.

Note that I refer to our comparison group as “other-adults” rather than non-parents because I cannot differentiate parents who are empty nesters (i.e., parents whose children are grown and no longer live at home) from adults without biological or adoptive children. This limitation (which is shared by other studies: e.g., Deaton and Stone 2014; Glass et al. 2016; Herbst and Ifcher 2016) stems from the fact that the ATUS and CPS did not ask respondents if they ever had children; only whether they had an “own child” living in the home and their relationship to the child. As such, I am also careful in saying that I am studying the implications of raising household minor children on parental wellbeing, rather than the impact of being a parent. The choice to limit the sample to adults age 50 also intended to minimize the risk that empty nesters appeared in the other-adults group. This specific age cut-off was informed by other studies (e.g., Aassve, Goisis, and Sironi 2012), although I assess the robustness of the results to other age specifications.

Measures

Parenting status. The focal independent variable is parenting status. This measure reflects two statuses. The first is ‘parent,’ which includes respondents who have an own (i.e., biological or adopted) child younger than 18 years old living in the home. The second group includes ‘other-adults’: defined as respondents who do not have an own (biological or adopted) household child younger than age 18 living in the home.

Affective wellbeing. For each of the three randomly selected activities, respondents were asked to assess on a scale from 0 (not at all) to 6 (very much) how they felt in that activity along five dimensions: happy, sad, stressed, tired, and meaning. These measures of experienced affective wellbeing were modeled based on the Princeton Affect and Time Use Study (Krueger et al. 2009). The order in which each dimension of wellbeing was presented to respondents was randomized, although *meaning* was always asked about last. Activities shorter than 5 minutes, grooming, personal activities, and sleeping were not eligible for the Wellbeing Module.

Activity contexts. To better understand how and why experienced affective wellbeing may differ by parental status, I measured two contexts: what respondents were doing (activity type) and whether a child was present. First, wellbeing was assessed using all activity records (including childcare) reported in the sample to create a measure of *all time*. Next, to assess what respondents were doing when they reported their wellbeing, I assigned the individual activity reports to one of three common daily activities: *market work*, *nonmarket work* and *leisure* (see Aguiar and Hurst 2007 and Musick et al. 2016 for a similar approach). *Market work* includes all time spent working for pay as well as breaks from work, eating and drinking at work, and searching for and interviewing for

jobs. *Nonmarket work* captured time spent maintaining the household (e.g., cooking, vehicle repair), household management (e.g., paying bills), and obtaining and supervising household services (e.g., purchasing laundry services). *Leisure* included time spent relaxing and socializing (e.g., talking to others, watching television, attending arts events), eating and drinking (not done at work or in volunteering) and in sports (doing, attending or observing), exercise and recreational activities (e.g., playing basketball, dancing, fishing). Wellbeing reports taken from an activity that did not fall within one of these three categories were retained for the analyses that considered wellbeing in all activities (i.e., *all time*), but not in analyses that considered wellbeing in specific contexts. Note that time spent in childcare (e.g., dressing children) is included in *all time* but not in the analyses that examine wellbeing by activity type because other-adults did not spend any time in childcare, and I could not identify an activity that conceptually matched childcare and had similar frequency. A more detailed description of the activities that comprised these measures can be found in Appendix B. Based on data from the “who” files, I also created a marker that indicated whether a child was present or not in the same room during each of parents’ reported activities.

Individual level covariates. To account for factors that may correlate with respondents’ reports of affective wellbeing (for a review see Hansen 2012; Kapteyn et al. 2015; Nelson et al. 2014; Stone, Schneider, and Harder 2012; Umberson et al. 2010), the following measures were included in all models: respondents’ chronological age (measured *continuously*), gender (0 = *male*, 1 = *female*), race or ethnicity (dummy coded as *White non-Hispanic*, *Black non-Hispanic*, *Asian non-Hispanic*, *Other non-Hispanic and Hispanic*), partnership status (1 = *spouse or partner in the home*; 0 = *no spouse or*

partner in the home), educational attainment (dummy coded as *less than high-school degree, high-school degree, some college, and college degree and higher*), employment status (dummy coded as *full-time employed, part-time employed, unemployed, and not working*), whether they were a student (0 = *no*, 1 = *yes*), their family income (dummy coded into one of four categories: <\$24,999, \$25,000-\$49,999, \$50,000-\$99,999, >\$100k), their geographic region (dummy coded as *West, Midwest, North, and South*), and whether they lived in a metropolitan area (0 = *no*, 1 = *yes*). Models also accounted for survey information, including whether the diary was recorded on a weekday (0 = *no*, 1 = *yes*), in a summer month (0 = *no*, 1 = *yes*), or on a holiday (0 = *no*, 1 = *yes*); the year of the interview (dummy coded); and the order in which the wellbeing questions were asked (dummy coded as first through fifth).

Activity level covariates. Models also accounted for several activity characteristics that may affect how one feels in and about the activity including: the duration of the activity (e.g., recent work shows that the duration of childcare episodes results in different reports of stress (Connelly and Kimmel 2015) (measured continuously in *minutes per day*); whether the activity took place at home or somewhere else (0 = *somewhere else*, 1 = *at home*) (e.g., eating and drinking at home may feel different from doing the same at a friend's house or downtown); the time of day in which the activity took place (4:00 a.m. to 8:59 a.m., 9:00 a.m. to 13:59 p.m., 14:00 p.m. to 16:59 p.m., 17:00 p.m. to 20:59 p.m., 21:00 p.m. to 3:59 a.m.) (e.g., solving a problem at work during the morning vs. evening hours may feel more meaningful than stressful; parenting may be more stressful during dinnertime than other time of the day (Campos et al. 2013); and one may feel more tired after noon than before noon (Kahneman and Krueger 2006))².

Analysis Plan

For the multivariate analyses, I began by estimating the association between parenting status and the five measures of affective wellbeing using linear regression, with each measure of wellbeing estimated by a separate model. In order to pool across all three reports of wellbeing, random effects were incorporated, which accommodated the nested structure of the data (i.e., three reports of wellbeing nested within individuals), while adjusting for non-independence and correlated measurement error in the reports. Assuming that all confounding factors correlated with the predictor variables are accounted for, they also adjusted for unobserved heterogeneity in the wellbeing reports (Allison 2009; Laird and Ware 1982). This initial step clarified how the positive and negative measures of wellbeing varied across the two parenting statuses.

As the next step, I examined whether the patterns observed during *all time* (i.e., all activities taken together) were more pronounced, or less pronounced, when looking within specific activities: namely market work, nonmarket work, and leisure. To examine this possibility, the analysis included wellbeing reports that were linked to one of these three activities. Wellbeing in each activity was estimated separately. Thus, for this step, I estimated a total of 15 models (five measures of wellbeing in three possible activities). Note that this step resulted in a reduction of sample size (notated in the tables) because not all respondents were asked about their wellbeing during market work, nonmarket work, or leisure, and because in a typical day there are fewer episodes of market work compared to episodes of nonmarket work and leisure (e.g., a respondent may report two episodes of four hours each of market work along with several shorter episodes of nonmarket work and leisure). At the same time, some respondents had multiple reports of

wellbeing in the same activity category. Thus, as with the first set of models, random effects were employed (as well as in all subsequent modeling steps) to adjust for the nesting of reports within individuals. In the third step of the analysis, I explored whether the patterns observed by activity type remained when the analysis included only activity reports in which children were not present (the activity reports for adults who do not parent remained the same). This step revealed whether the parenting wellbeing gap was driven by the presence of children.

As a final step, I examined whether the associations observed in the models described above were driven by women or could be generalized to men. To examine this issue, I added interaction terms between the measures of parental status and gender, repeating the analysis steps described above. Following the estimation of each regression model, I calculated average marginal effects (AMEs; Esarey and Sumner 2015) to more directly assess whether the size of the parenting wellbeing gap for women (i.e., the difference in emotions among mothers and female other-adults) was different than it was for men (also known as a difference in difference comparison).

I estimated all models using the statistical software package Stata Version 14 and employed the full set of covariates described above. All multivariate analyses incorporated the activity-level weights to adjust for the unequal probability that different activities were selected for the Wellbeing Module (ATUS 2014). To deal with missing data, listwise deletion was used, rather than multiple imputation techniques (which have become the modal practice for handling missing data) because the ATUS contains a negligible amount of missing information, and only for family income in less than 1% of

cases. Missingness on this variable has been suggested to violate the MAR assumption of multiple imputation (Abraham, Maitland, and Bianchi 2006).

2.4 RESULTS

Descriptive Information on Parents and Other-adults Subsamples

Table 2.1 presents information on the sociodemographic characteristics of the parent and other-adult subsamples, as well as the full analytical sample. T-tests were used to determine if the differences between the parent and other-adults' groups were statistically significant.

Parents are, on average, older than other-adults (37.03 vs. 33.06). Among parents, 56.75% are women, while among other-adults, 43.67% are women. Parents report slightly higher household incomes (57.17% of parents reported incomes over \$50,000, compared to 51.56% of other-adults). As expected, a higher percentage of parents than other-adults reported living with a spouse or partner in the same household (83.01 vs. 36.40). A higher percentage of other-adults, than parents, reported a college degree or more (39.61% vs. 34.38%) and enrollment in college (16.18% vs. 5.79%). A smaller percentage of parents than other-adults were White (61.29% vs 66.79%) and a higher percentage were Hispanic (21.74% vs. 12.53%). Employment status was fairly comparable between the two groups (full-time: 62.04% for parents vs. 64.63% for other-adults; part-time: 14.31 vs. 14.85); although a larger share of parents than other-adults reported not working (17.18% vs. 12.86%). Parents averaged slightly fewer than two children; 45.15% had a youngest child aged 0-4, 39.03% had a youngest child aged 5-12, and 15.82% had a youngest child aged 13-17.

As a second descriptive step, I compared the affective wellbeing of parents and other-adults in *all time* (i.e., pooled across all three reports). These results appear in Table 2.2. In line with the expectations presented above, these results revealed that parents reported feeling more happiness and meaning than other-adults, but also more fatigue. Contrary to my expectations, however, parents reported less sadness compared to other-adults, and there was no statistically significant difference between parents and other-adults for stress.

Multivariate Results Predicting Time Use and Wellbeing

Reanalyzing the patterns that appear in Table 2.2 in a multivariate context, which control for individual, time diary, and survey factors, I find that in *all time* (i.e., all activities taken together) parents reported significantly more happiness ($B = .18, SE = .03$) and meaning ($B = .49, SE = .03$) than other-adults, but they also reported more fatigue ($B = .09, SE = .03$) and more stress ($B = .12, SE = .03$), as well as less sadness ($B = -.07, SE = .02$). Thus, in short, parents experienced more positive affect (happiness and meaning), but also more negative affect (stress and fatigue) than adults who are not caring for children, with the exception of sadness, which parents experienced less of. These results can be found in Table 2.3.

This overall picture, however, may not characterize how parents feel compared to other-adults during particular activities. Indeed, when I look at activities separately (results presented in Figure 2.1; refer to Appendix C for full coefficients), I find that in *market work* (i.e., any work for pay), parents' and other-adults' affective wellbeing were more similar, with parents reporting only marginally more meaning ($B = .13, SE = .07$), than other-adults. During *nonmarket work* (e.g., cooking and grocery shopping), parents

reported marginally more fatigue ($B = .10$, $SE = .06$) and significantly more stress ($B = .14$, $SE = .05$) than other-adults, but they also reported more meaning ($B = .23$, $SE = .06$) than other-adults did. Looking at wellbeing reports drawn from *leisure* activities (e.g., eating and drinking, watching television), I find that parents reported significantly more happiness ($B = .23$, $SE = .03$) and meaning ($B = .48$, $SE = .04$) and less sadness ($B = -.11$, $SE = .03$), but also more stress ($B = .07$, $SE = .04$) and fatigue ($B = .12$, $SE = .04$) than other-adults. Thus, while this latter pattern mirrors the pattern observed when looking across all activity reports, patterns in market work and nonmarket work did not.

Examining Whether the Presence of Children Matters

Next, I examined whether differences in affective wellbeing by parental status were driven by the presence of children during these activities. I did so by eliminating activity reports for parents in which children were present. As the descriptive results that appear in Table 2.4 conveyed, about half of all parents' activity reports are with a child present, with the majority of leisure activity reports consisting of time involving children, and about 40% of all nonmarket work activity reports being with a child present. Such patterns underscore the importance of teasing out the presence of children from the results reported above. In doing so, I focus on nonmarket work and leisure, as only 6 % of all market work activity reports are with a child present. The results of these analyses appear in Table 2.5. For comparison purposes, the first column includes estimates of wellbeing in all activities, regardless of whether a child was present or not (i.e., the coefficients reported in Table 2.3, and those used to create Figure 2.1). Column 2 contains estimates of wellbeing in activities in which parents did not report the presence

of a child based on the ‘who’ file. Note, the other-adults sample remained the same in this analysis.

Overall, I find that the positive association between parenting and affective wellbeing is driven by the presence of children. When children are not present, parents report less positive affect, particularly in *all time* ($B = .18$ vs. $B = -.05$) and in *leisure* ($B = .23$ vs. $B = -.02$) in which their average happiness levels dropped below those for other-adults. I also observed a sharp decline in meaning for *all time* ($B = .49$ vs. $B = .14$), in *leisure* ($B = .48$ vs. $B = .07$), and in *nonmarket work* ($B = .23$ vs. $B = .05$). At the same time, parents’ greater levels of stress and fatigue compared to other-adults remained relatively unchanged when children were absent, and in fact, during leisure, parents’ stress ($B = .07$ vs. $B = .15$) and fatigue ($B = .12$ vs. $B = .17$) intensified. Consistent with this pattern, parents’ significantly lower levels of sadness during *all time* ($B = -.07$ vs. $B = -.02$) and *leisure* ($B = -.11$ vs. $B = .02$) also became insignificant when children were not present. Thus, overall, parents experienced more positive affect compared to other-adults, but only in the presence of their children. Their greater levels of negative affect compared to other-adults, however, persisted regardless of whether their children were present or not.

Comparing the Parenting Wellbeing Gap between Men and Women

As a final step, I added an interaction between parental status and the respondent’s gender and calculated average marginal effects to examine whether the association between parental status and affective wellbeing differed by respondent’s gender. I did this within each of the three activities and for *all time*, as well as when children were not present. These estimates are presented in the form of a graph in Figure

2.2 (model coefficients appear in Appendix D). Positive columns indicate that parents reported higher levels of that emotion compared to their same gender counterparts without own household minor children. Negative columns indicate that parents reported lower levels of that emotion than their same gender counterparts without own minor household children. Patterned columns indicate that the differences between parents and other-adults of the same gender were statistically significant at $p < 0.05$ level. The statistical significance of the gender difference in the parental wellbeing gap (i.e., difference in difference estimate) is marked by an asterisk.

The results from this analysis step did not reveal significant differences between the size of the wellbeing gap by gender, along positive or negative dimensions, and within any context, with two exceptions. For happiness during *market work*, mothers reported more happiness than women who were not raising children, but there was no such difference in happiness by parental status for men. For fatigue during *nonmarket work*, mothers reported more fatigue than women who were not raising children, but again, there was no such difference observed for men. Thus, with these two noteworthy exceptions, the gaps in wellbeing between parents and other-adults as described in Table 2.3 and Figure 2.1 can be generalized to both women and men. This conclusion is also robust to models in which I only considered reports when children were not present (results provided in Appendix E).

Robustness Analyses

Union status. Because some studies have suggested that differences in affective wellbeing between parents and adults without children are driven by union status, not parenting status (Twenge et al. 2003), I repeated the entire analysis among only partnered

adults (i.e., respondents who reported that a spouse or partner is present in the household) (results not shown, but available upon request). Results from models of *all time* are similar to those presented for the full sample for positive affect and sadness, in which parents reported significantly more happiness and meaning and less sadness than other-adults. However, for measures of negative affect, I no longer find a significant difference between parents and other-adults. This pattern is likely explained by the fact that single parents reported the highest levels of stress and fatigue, whereas single other-adults reported the lowest. Focusing only on activities in which children were not present, I found a very similar pattern to the one observed in the full sample, with the findings for the measures of negative affect significant at the minimum probability level $p < .05$ (i.e., when children were not present, parents reported more stress and fatigue than other-adults). Based on these analyses, I conclude that the results in the full sample are generalizable to partnered and single adults, with the exception that single parents experienced more negative emotions in the presence of their children than partnered parents.

Child age. As children grow, the nature and amount of time that parents spend with them is likely to change (Collins, Madsen, and Susman-Stillman 2002; Kalil, Ryan, and Corey 2012; Yeung et al. 2001). Thus, the link between parenting and affective wellbeing may vary depending on the age of parents' children as well. To address this possibility, I stratified the parent sample based on the age of the youngest child, in which child age was categorized according to three major stages of child development: infancy/preschool (age 0-4), middle childhood (5-12), and adolescence (13-17) (results not shown, but available upon request). Overall, for happiness, meaning, and sadness, the

main effects (i.e., results that appear in Table 2.3 and Figure 2.1) are robust across child ages. Negative emotions, however, are strongest among parents whose youngest child is 0-4, fade for parents whose youngest child is in middle childhood (i.e., parents only experience more stress than other-adults) and are no different for parents whose youngest child is age 13-17 from other-adults. These patterns are consistent across activity, as well as models that account for the presence of children. They are also consistent for men and women whose youngest child is age 0-4 and 5-12. Mothers whose youngest child is age 13-17, however, reported less stress and fatigue than women without children in market work, but more fatigue during nonmarket work.

Child gender. Given gendered time investments in children (fathers of boys spend more time with their children than fathers of girls; Mammen 2011) and preferences (U.S. parents prefer a mixed gender ratio over having children of the same sex; Raley and Bianchi 2006), it is also possible that the parental wellbeing gap may vary depending on the gender composition of parents' minor children. To explore this possibility, I follow prior work on child gender by stratifying the parent sample as follows: a) all girls, b) all boys, c) both girls and boys (Mammen 2011) (results not shown, but available upon request). These results revealed that for *all time*, parents' higher levels of positive affect compared to other-adults does not vary depending on the gender composition of their children, but parents of all boys did not experience more negative affect than other-adults. During time when children are not present, however, child gender seemed to make little difference. These overall patterns are similar for men and women, with the exception that for parents of only girls, it is fathers who experienced greater stress (in all

time and leisure) than male other-adults, and mothers who reported more fatigue (during all time, nonmarket work and leisure) compared to female other-adults.

Sample age. The aim of censoring the sample at age 50 was to limit the risk of including respondents who were empty nesters in the other-adult sample. In doing so, however, I have also excluded many parents, who, compared to the full parent sample, were more likely to be male, college educated, White, and employed full-time. Thus, as a final robustness analysis, I replicated the analysis on adults age 21-58 (results not shown, but available upon request). Doing so added 973 parents to the analysis sample and 2,928 other-adults. This change in the sample also created more equal comparison groups in terms of age (mean age for parents was 38.34 and 39.17 for other-adults) as well as other sociodemographic factors (again, descriptive figures available upon request). Overall, the patterns reported in the 21-50 age sample were similar for the sample aged 21-58. One minor exception was that during *all time* and *leisure* when children were not present, the sample of parents aged 21-58 reported significantly less happiness than other-adults, whereas this coefficient was marginally or not significant for the 21-50 sample. I also found that parents continue to report more stress than other-adults when their children are age 13-17, but not more fatigue.

2.5 DISCUSSION

For several decades, scholars have debated the existence of the parenting wellbeing gap. Discussions about the parenting wellbeing gap have also appeared in numerous popular press articles (e.g., Dell’Antonia 2016; Villarica 2012), reflecting the salience of parenthood to people’s lives and identities—for both people who have

children and those who do not—and both the public’s and scholar’s fascination with understanding how experiences of being a parent and not being a parent shapes individuals’ emotional wellbeing. Yet despite a tremendous amount of research on the topic, the debate ensues, with some studies finding that parents have lower levels of emotional wellbeing than non-parents, and other studies that report the reverse. Given this mix of findings on an important topic, this study wades into the debate, aiming to offer both some refinement to previous work and new insights. I do so by taking several new approaches to examining parental wellbeing and using a new source of data for investigating it.

First, in line with my first hypothesis, as well as some limited prior work that was based on older cohorts (Nomaguchi and Milkie 2003; Umberson and Gove 1989), non-representative samples (Kapteyn et al. 2015; Nelson et al. 2013), or data averaging emotions across activities (Deaton and Stone 2014), I found that parents experienced more positive emotions (more happiness and meaning) than other-adults overall, but also more extreme negative emotions (more stress and fatigue). These results capture the duality of the parenting experience; a view of parenting recognized by scholars, yet one that surprisingly has been infrequently incorporated into research on parental wellbeing. By parsing out positive from negative emotions, these results also help refine conclusions based on global measures, which tended to find evidence in favor of a wellbeing gap. One potential explanation for prior findings may be that because negative emotions are more salient than positive ones (Baumeister et al. 2001), respondent’s negative feelings more commonly outweighed their positive ones.

In an effort to both refine and extend prior research, the focus on *experienced* assessments of emotional wellbeing also allowed me to look at the parenting wellbeing gap in certain activities. Doing so is essential to understanding the parental wellbeing gap because, as prior research has shown, parents enjoy and dislike certain facets of parenting more than others (Campos et al. 2013; Connelly and Kimmel 2015). As such, their emotional responses to parenting are likely to depend on contextual factors, including what they are doing and who they are doing it with. Doing so also allowed me to determine whether the greater negative and positive emotions experienced by parents were, in fact, experienced during the same activities. Indeed, I find that differences in positive and negative dimensions of emotional wellbeing by parental status occur primarily during activities outside of paid work, and often in tandem. Specifically, I find that much of parents ‘positive emotional advantage’ (i.e., greater happiness and meaning) is experienced during leisure. Yet during leisure, parents also experienced both more stress and fatigue than other-adults (in nonmarket work, parents only experienced more stress).

More broadly, these results suggest that while parents experience different levels of positive and negative emotions than other-adults, this difference does not characterize the entire existence of either group, which tends to be implied by research using *evaluative* measures of wellbeing (for a review see Hansen 2012; Simon 2008). In this way, they also speak to discussions of work-family conflict by underscoring how more of this “conflict” is experienced at home than at work (Damaske et al. 2014), and revealing how, in contrast to popular wisdoms about working mothers, mothers experience and manage negative emotions at work to the same degree as women without minor children.

Third, I find that the most decisive factor in the link between parental status and affective wellbeing is the presence of children during the activity. Consistent with recent work using *experienced* measures of wellbeing (note that this work examines exclusively parents; it does not compare parents to other-adults) (Connelly and Kimmel 2015; Musick et al. 2016; Nelson et al. 2013), these results show that the presence of children is key to the positive emotional advantage that parents experience. When children are not present, parents' positive emotions decline to equal or lower levels than those reported by other-adults, during *nonmarket work*, but especially during *leisure*. This contradicts the highly publicized work by journalist Senior (2014) titled "All joy and no fun", as well as the assumptions of some prior research (Bittman and Wajcman 2000; Mattingly and Bianchi 2003) by revealing that children's presence does, in fact, increase parents' feelings of meaning and happiness. Such findings may be explained by work on *evaluative* subjective wellbeing, which shows how social contact during an experience is associated with higher positive emotions (Diener and Seligman 2002; Helliwell and Putnam 2005). More broadly, they reveal how parents do not derive positive emotions from their social identities as mothers and fathers, but from the experience of parenting; a subtle distinction, but one that offers a needed nuance to understanding how parenthood promotes positive affect.

At the same time, I find that parents' feelings of negative affect (i.e., stress and fatigue) did not improve when children were absent. In fact, for partnered parents, compared to estimates based on the full sample, higher negative affect was only observed in times when children were absent; especially during leisure activities. It is possible that parents experienced higher levels of negative affect compared to other-adults when

children were absent because fatigue and stress experienced during time with children lingered into their subsequent activities when children were not present. Because information on the sequence of activities is not available, I cannot test whether parents have greater negative affect in activities without their children because those activities immediately followed one in which their child was present, although this would be interesting to assess in future research. It is also possible that parents are more acutely aware of their stress and fatigue once their children are no longer in their presence.

I also find that the size of the gender gap is not greater for women compared to men, for any emotion, during any activity, with two exceptions. First, mothers reported more happiness during *paid work* than female other-adults, but there was no difference in happiness by parental status for men. This finding is surprising given conflicting ideologies of good mother and good worker (Parker and Wang 2013) which are expected to leave mothers feeling guilty about working outside the home (Blair-Loy 2009; Rizzo, Schiffrin, and Liss 2013). Instead, they are in line with Hochschild's argument (1997) that mothers perceive the workplace as a haven away from home. Another reason for this finding is suggested by another finding: that the size of the gender gap for fatigue during *nonmarket work* is larger for women (mothers report more fatigue during nonmarket work than women not raising children) than for men (in which there was no significant difference by parental status for men).

Finally, the robustness analyses revealed some interesting nuances. First, contrary to work suggesting that the benefits of parenting may actually be driven by partnership status and not the experience of parenting (Twenge et al. 2003), these analyses show that regardless of partnership status, parents experienced higher levels of positive affect (i.e.,

more happiness, meaning and less sadness) compared to other-adults, but that partnership status is relevant for negative emotions, but only during time spent with children. This may be explained by the fact that partnered parents (especially mothers) spend slightly more time with children (Kendig and Bianchi 2008; Sayer, Bianchi, and Robinson 2004), than single parents. Thus, during their time with their children, single parents may feel more pressure to combine caretaking with other activities in ways that induce greater negative feelings.

Second, I found that consistent with ideas about variations in time investments in children at different parenting stages (Collins et al. 2002; Eccles 1999; Kalil et al. 2012; Yeung et al. 2001), the emotional costs of parenting were highest for parents with young children (who reported both more stress and more fatigue than other-adults) and fade as children grow older, yet the benefits associated with parenting remain across all child ages. Finally, although U.S. parents express a preference for a mixed gender composition when it comes to the sex of their children (Raley and Bianchi 2006), findings from this study show that regardless of their children's genders, parents enjoyed higher positive affect compared to other-adults. At the same time, only parents with all daughters report higher negative affect than other-adults. In particular, fathers' greater stress may reflect their greater worry about their daughters than sons, and mothers' greater fatigue may reflect the fact that partners in families with sons tend to share more of the housework than partners in families with just daughters (Mammen 2011; Raley and Bianchi 2006).

Beyond these contributions to the literature, these findings have broader significance for social policy, public health, and popular discourse as well. First, in connection to recent work suggesting that positive emotions, rather than the absence of

negative emotions, exert a more powerful effect on individual's health and physiology (Chida and Steptoe 2008; Huppert 2009; Cohen and Pressman 2006), these findings suggest that parenthood may have positive implications for not only emotional wellbeing, but also physical health. Although this possibility needs to be further investigated, future research supporting this idea could potentially galvanize greater support for policies that promote women's reproductive health. At the same time, the findings that parents also experienced more negative emotions compared to other-adults points to the need for more family friendly policies (as argued by Glass et al. 2016), as well as greater support for parents outside of the workplace. This latter finding also helps to provide greater understanding of some adults' decisions to forfeit parenting if such decisions reflect a rational desire to avoiding negative emotions over experiencing positive emotions. Again, more research is needed to address this possibility, but these findings can inform such efforts.

Despite these contributions, several limitations must be acknowledged. Foremost, the ATUS is cross-sectional. A longitudinal approach, which would measure experienced wellbeing at multiple time points during the life course (i.e., prior and post fertility), would allow me to rule out the issue of selection into parenting (e.g., the idea that happy people are more likely to become parents, thus explaining why parents are happier than other-adults) and out of parenting, which cannot be done in the present study³; as well as variation in parents' and other-adults' wellbeing depending on whether their parental status was entered into voluntarily or not. Thus, threats of omitted variable bias remain. Unfortunately, nationally representative, within-subject, longitudinal time diary data in the U.S. is not yet available to address these concerns. Second, the ATUS interviews

only one respondent per household. Couple level data would allow to better disentangle the role of gender in the parenting wellbeing gap. Third, the ATUS does not provide measures such as social support, parenting style, child problems, child temperament, parent attachment style and quality of parent-child relationship, which have been shown to moderate the link between parenting and wellbeing and may also help explain the range of findings in previous research (for a review, see Nelson et al. 2014). Fourth, the measure of time without children does not identify time when a child was in their parents' care but in a separate room. Analyses (not shown but available upon request) where this issue was explored, however, returned similar patterns as those presented in the main analysis. Finally, similar to previous work on the parenting wellbeing gap, the effect size of wellbeing gaps between parents and other-adults are modest (Hansen 2012). Thus, I acknowledge that these differences do not amount to what would be considered large effects, although the substantive significance of effect sizes for assessments of subjective wellbeing continue to be an area of discussion and development amongst researchers.

In sum, this study used a unique source of nationally representative data containing assessments of *experienced* emotional wellbeing of both parents and other-adults that provided a new opportunity to reexamine the question of how parental status may affect adults' emotional wellbeing. I found that a parenting wellbeing gap exists, but not in the way suggested by most prior work. Specifically, parents experienced more negative emotions than adults who are not raising minor children, but they also experienced more positive emotions. At the same time, these differences largely occurred when adults were in *nonmarket work* and *leisure*. Parents' higher levels of positive affect

also disappeared when their children were absent. Taken together, these findings provide more direct empirical evidence that, as suggested by other work (Deaton and Stone 2014; Kapteyn et al. 2015; Nelson et al. 2013; Nomaguchi and Milkie 2003; Umberson and Gove 1989), parenting is a mixed bag of emotions that confers greater emotional benefits under certain conditions (e.g., more happiness and meaning during *all time*, which captures a range of different activities; more happiness during *market work* for women with children), greater emotional strains in others (e.g., greater stress and fatigue during *nonmarket work* and *leisure*), and has minimal implications for the wellbeing gap in others (e.g., for positive emotions when children are not present). These results add nuance and clarity to the debate on the “parenting happiness gap” by providing fresh insights into how the daily lives of U.S. adults caring for children compare to those of adults not raising minor children. Such insights are relevant to policy makers aiming to promote the goals of both groups and help to challenge simplistic cultural narratives that have depicted parents as both unambiguously better off, and worse off, than adults not caring for children.

ENDNOTES

¹ Fourteen respondents whose labor force status did not match their activity records (e.g., they were coded as not in labor force but reported engaging in work for pay at main job) were also dropped from the sample. This incongruence in the data stems from the fact that employment status was determined based on answers to a series of questions relating to respondent's activities during the preceding week. Therefore, it is possible that someone became employed during the week which they responded to the survey but were not employed in the week prior.

² Descriptive analyses showed that the number of activities reported varies by parental status (parents reported, on average, 4 more activities than other-adults). The total number of activities is not conventionally controlled for in similar studies (Connelly and Kimmel 2015; Meier et al. 2014; Meier et al. 2016; Musick et al. 2016). Nonetheless, it may operate as a confound. Thus, I tested its significance in additional models (results available upon request). Its inclusion did not result in changes to the results or model fit. Thus, I opted to present the more conventional and parsimonious model that did not include a control for number of activities.

³ This study could be viewed as providing an indirect test of the selectivity thesis, at least in regard to happiness because on average, if happy people would select into parenthood, then I should continue to find that parents are happier than other-adults, regardless of whether they are in the company of their children or not. Instead I find that parents are, actually, as happy or less happy than other-adults when their children are not present

Table 2.1 Characteristics of Study Sample (Mean / % (SD) for Parents, Other-adults and Full Sample

	Parents	Other-adults	Full sample	N's
<i>Respondent Characteristics</i>				
Age	37.03 (7.38)	33.06 (9.25) *	35.26 (8.50)	16,169
Female	56.75	43.67*	50.90	9,018
Male	43.25	56.33*	49.10	7,151
Hh income <\$25k	18.51	21.69*	19.93	3,325
\$25k to 49.99k	23.41	25.70*	24.44	3,817
\$50k to 99.99k	33.68	32.46	33.13	5,291
\$100k+	23.49	19.10*	21.53	3,552
<i>Racial/Ethnic Group</i>				
White Non-Hispanic	61.29	66.79*	63.75	10,476
Black Non-Hispanic	10.18	13.22*	11.54	2,029
Asian Non-Hispanic	4.98	5.66	5.28	776
Other Non-Hispanic	1.80	1.80	1.80	303
Hispanic	21.74	12.53*	17.62	2,585
Student	5.79	16.18*	10.43	1,381
<i>Education level</i>				
< High school	11.65	6.23*	9.23	1,254
High school	27.66	24.82*	26.39	3,590
Some college	26.31	29.33*	27.66	4,669
College degree	34.38	39.61*	36.72	6,656
<i>Employment status</i>				
Full-time employed	62.04	64.63*	63.20	10,431
Part-time employed	14.31	14.85	14.55	2,230
Unemployed	6.47	7.66	7.00	1,004
Not working	17.18	12.86*	15.25	2,504
Spouse in the home	83.01	36.40*	62.16	10,201
<i>Household Child Characteristics^a</i>				
Youngest child 0-4	45.15	-	-	4,834
Youngest child 5-12	39.03	-	-	4,637
Youngest child 13-17	15.82	-	-	1,447
Number of children	1.85	-	-	10,915
N respondents	10,915	5,254	---	16,169
Proportion of sample	67.51	32.49	100	---

Note: Estimates for region, metropolitan area, season, and survey year not shown.

Standard deviations in parentheses. N's are unweighted, means and percentages are

weighted. ^a Only reported for parents. * Differences between parents and other-adults are

statistically significant at least at $p < .05$.

Table 2.2 Activity-level Weighted Means of Affective Wellbeing during All Time for Parents, Other-adults and Full Sample

	Parents	Other-adults	Full sample
	Mean / (<i>SD</i>)	Mean / (<i>SD</i>)	Mean / (<i>SD</i>)
Happiness	4.38 (1.55)	4.10* (1.61)	4.25 (1.58)
Meaning	4.49 (1.78)	4.00* (1.90)	4.27 (1.85)
Sadness	0.55 (1.27)	0.62* (1.32)	0.58 (1.29)
Stress	1.64 (1.83)	1.62 (1.86)	1.63 (1.84)
Fatigue	2.46 (1.93)	2.39* (1.88)	2.43 (1.91)
N activities	32,552	15,626	48,178

Note: Emotions are measured on a 7-point scale ranging from 0 (not at all) to 6 (very much). N's are unweighted, means and percentages are weighted. * Differences between parents and other-adults are statistically significant at least at $p < .05$. All-time includes all activities reported in the ATUS, including childcare.

Table 2.3 Affective Wellbeing Gap between Parents and Other-adults during All Time

	<i>B (SE) Affective Wellbeing</i>				
	Happiness	Meaning	Sadness	Stress	Fatigue
	(1)	(2)	(3)	(4)	(5)
Parents (ref.=Other-adults)	0.18*** (0.03)	0.49*** (0.03)	-0.07** (0.02)	0.12*** (0.03)	0.09** (0.03)
Age	-0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01** (0.00)	-0.01*** (0.00)
Female (1=yes)	0.08*** (0.02)	0.13*** (0.03)	0.03+ (0.02)	0.19*** (0.02)	0.35*** (0.03)
Race/ethnicity: (ref. = White NH)					
Black Non-Hispanic	0.23*** (0.04)	0.51*** (0.04)	-0.01 (0.03)	-0.27*** (0.04)	-0.22*** (0.04)
Asian Non-Hispanic	0.15** (0.05)	0.37*** (0.06)	0.16*** (0.04)	-0.09+ (0.05)	-0.24*** (0.06)
Other Non-Hispanic	0.05 (0.08)	0.27** (0.09)	-0.01 (0.07)	-0.10 (0.08)	-0.16 (0.10)
Hispanic	0.30*** (0.03)	0.44*** (0.04)	0.08** (0.03)	-0.04 (0.04)	-0.12** (0.04)
Employment status (ref. = Full-time)					
Part-time work	-0.03 (0.03)	-0.06 (0.04)	0.05* (0.03)	0.02 (0.03)	-0.15*** (0.04)
Unemployed	-0.07 (0.05)	0.04 (0.05)	0.21*** (0.04)	0.20*** (0.05)	-0.52*** (0.05)
No paid work	-0.11*** (0.03)	-0.11** (0.04)	0.20*** (0.03)	0.14*** (0.04)	-0.11** (0.04)
Student (1=yes)	-0.11** (0.04)	0.04 (0.04)	0.02 (0.03)	0.23*** (0.04)	0.21*** (0.05)
Spouse present (1=yes)	0.22*** (0.03)	0.15*** (0.03)	-0.18*** (0.02)	-0.15*** (0.03)	-0.07* (0.03)
Household income: (ref. = <\$25k)					
\$25 k to \$49.99 k	0.01 (0.03)	-0.08* (0.04)	-0.15*** (0.03)	-0.17*** (0.04)	-0.14*** (0.04)
\$50 k to \$99.99 k	-0.01 (0.03)	-0.11** (0.04)	-0.17*** (0.03)	-0.17*** (0.04)	-0.12** (0.04)
> \$100 k	-0.04 (0.04)	-0.16*** (0.04)	-0.22*** (0.03)	-0.19*** (0.04)	-0.24*** (0.05)
Act at home (1=yes)	-0.02 (0.01)	0.05** (0.02)	-0.04*** (0.01)	-0.20*** (0.01)	0.39*** (0.02)
Act duration (min/day)	-0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)

Cont. Table 2.3 Affective Wellbeing Gap between Parents and Other-adults during All Time

Constant	4.30*** (0.11)	3.26*** (0.13)	0.33*** (0.09)	1.20*** (0.12)	2.55*** (0.14)
rho	0.467	0.412	0.565	0.520	0.524
N activities	47,591	47,477	47,638	47,648	47,635
N respondents	16,017	15,999	16,022	16,023	16,023

Note: “All time” captures all activity reports included in the Well-Being Module, including childcare. Results from random effect models. Controls for education level, survey year, weekday, summer, holiday, metropolitan area, region, and order in which questions about subjective wellbeing were asked are not shown (full results available upon request). Significant at: *** $p < 0.001$. ** $p < 0.01$, * $p < 0.05$. Ref. = reference group. All time includes all activities reported in the ATUS, including childcare.

Table 2.4 Parent's Time Use by Activity Type and Child Presence

		With child	Without child
		(1)	(2)
All time	Mean time (min/day)	109.47	185.94
	% activity reports	52%	48%
Market work	Mean time (min/day)	217.40	285.18
	% activity reports	6%	94%
Nonmarket work	Mean time (min/day)	98.71	118.40
	% activity reports	40%	60%
Leisure	Mean time (min/day)	130.31	124.47
	% activity reports	57%	43%

Note: “Mean time” refers to the average time reported by parents and is measured in minutes/day (24 hours: from 4 a.m. to 4 a.m.). All time includes all activity reports available in the data. “With child” includes all activities when the respondent said they were with a child. “Without child” includes all activities when the respondent said they were not with a child. Because this analysis includes parents of children ages 0-17, and measurements of “secondary childcare” (i.e., activities when parents are engaged in a different activity, but are available to children if needed) are only available for parents of children 0-12, time “without child” does not exclude “secondary childcare”. Thus, it is possible that time “without child” includes activities when the parent was not with a child, but they were responsible for a child who was in a different room. Percentages are unweighted. Means are weighted using activity level weights.

Table 2.5 Affective Wellbeing Gap between Parents and Other-adults by Child Presence

	Child may be present	Child not present
Parents (Ref=Other-adults)	(1)	(2)
<i>All time</i>		
Happiness	0.18***	-0.05+
Meaning	0.49***	0.14***
Sadness	-0.07**	-0.02
Stress	0.12***	0.17***
Fatigue	0.09**	0.09*
<i>Market work</i>		
Happiness	0.09	0.06
Meaning	0.13+	0.10
Sadness	-0.04	-0.04
Stress	-0.01	0.01
Fatigue	0.05	0.06
<i>Nonmarket work</i>		
Happiness	0.08	-0.03
Meaning	0.23***	0.05
Sadness	-0.05	-0.07+
Stress	0.14**	0.09
Fatigue	0.10+	0.03
<i>Leisure</i>		
Happiness	0.23***	-0.02
Meaning	0.48***	0.07
Sadness	-0.11***	-0.02
Stress	0.07*	0.15***
Fatigue	0.12**	0.17***

Note: Results from random effect models. Controls for individual, household, survey, activity characteristics are not shown (full results available upon request). Significant at:

*** p<0.001. **p<0.01, * p<0.05. Ref. = reference group.

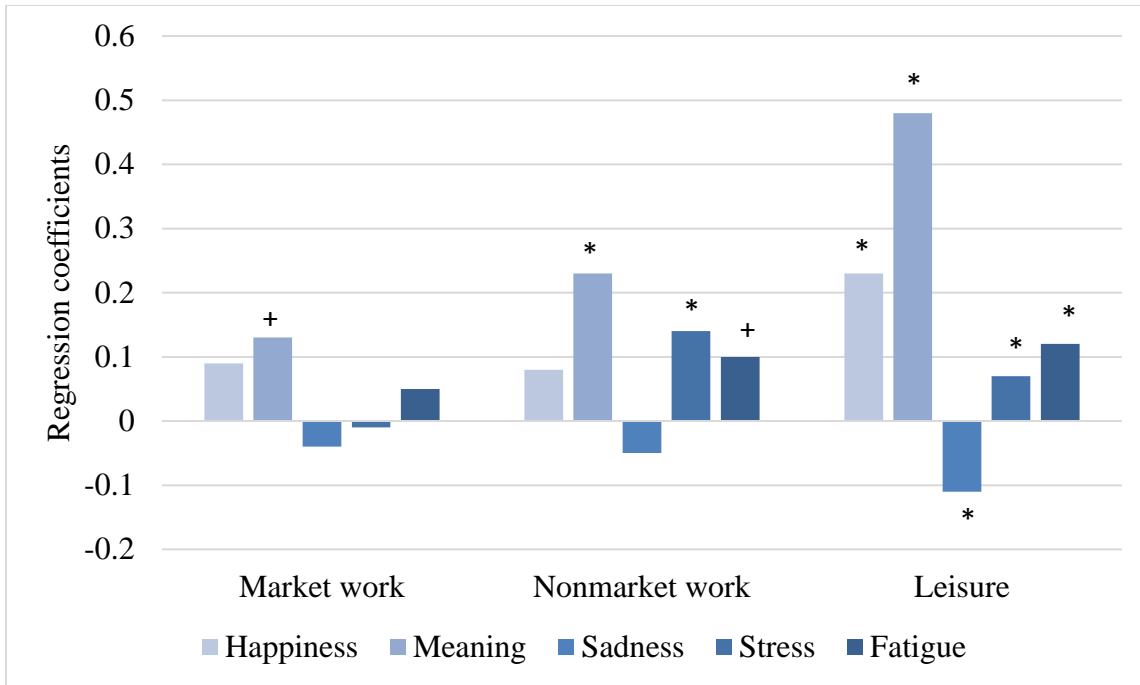


Figure 2.1 Affective Wellbeing Gap between Parents and Other-adults by Activity Type

Note: Results present regression coefficients from random effect models for parents (reference group = other-adults). Positive columns indicate that parents report higher levels of that affect compared to other-adults (reverse for a negative column). All models include full set of controls (individual, household and activity level controls). Differences between parents and other-adults significant at least at $+p < .1$. $* p < .05$. Refer to Appendix C for regression coefficients (full results available upon request).

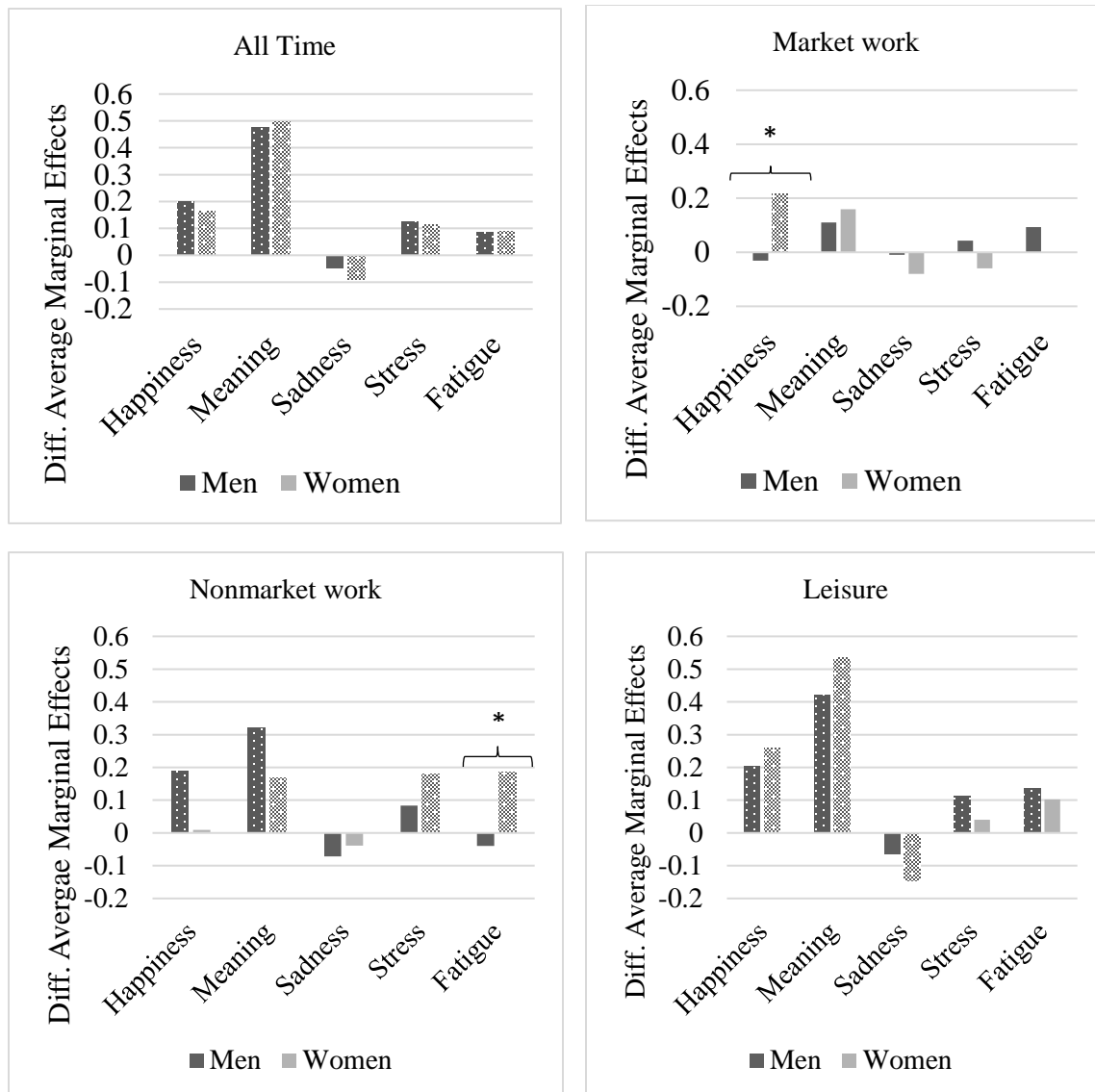


Figure 2.2 Affective Wellbeing Gap between Parents and Other-adults by Respondent's Gender during Time when a Child may be Present.

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between fathers and male other-adults (the same for female). A positive value indicates that parents report higher levels of that affect, than other-adults did (the reverse for a negative value). Patterned columns indicate that the difference between parents and other-adults is statistically significant at least at $p < .05$. The overall

difference between the male gap and the female gap is marked with an accolade and a * for $p < .05$. Diff. =Difference. All time includes all activities reported in the ATUS, including childcare. Refer to Appendix D for average marginal effects (full results available upon request).

CHAPTER 3

STUDY 2

During the past several decades a number of socio-economic changes, including the increase in educational attainment (especially among women; Fischer and Hout 2006) and the decline in manufacturing jobs paying livable wages (Vidal 2013), have contributed to a growing gap in the resources (and demands) available to individuals from various socioeconomic groups (McLanahan 2004; Olshansky et al. 2012). While extensive research has focused on documenting variations in parenting behavior (i.e., amount of time and type of activities parents do with and for children) across socioeconomic lines (Altintas 2016; Crnic and Low 2002; Lareau 2003; Kalil et al. 2012), and its effects on children's developmental outcomes (Augustine 2014; Bornstein and Bradley [2003] 2014; Ross and Mirowsky 2011), empirical research on how parenting is experienced by individuals at various SES levels has been scarce and is sorely needed (for notable exceptions see Nomaguchi and Brown 2011; Kushlev, Dunn, and Ashton-James 2012). Socioeconomic inequality at the population level and its connection to wellbeing is acknowledged theoretically by previous work, however it is not tested empirically (for a review see Umberson et al. 2010), with most existing studies having focused on the experience of middle-class individuals (e.g., Bertrand 2013; Pillemer and Sutor 2002; Pudrovskaya 2008). Further, although consensus has yet to be reached, recent work finds that parenting (vs. not raising children) is associated with both

costs and benefits for individual's wellbeing (Nelson et al. 2013; Nomaguchi and Milkie 2003). However, how these returns to parenthood are distributed across SES groups has yet to be answered.

Because socioeconomic factors may shape the experience, meaning and effects of parenting (and not parenting) in ways that undermine or exacerbate wellbeing (Umberson et al. 2010), the present study sets to empirically test: a) if parenting provides more positive emotional returns for low SES individuals than high SES individuals (or if the opposite is true); b) if this pattern is the same for negative emotions (there is reason to think yes, and no, as I detail below); c) if this pattern varies by gender (is this experience the same for women and men)?

Building on prior work the present study makes the following contributions to the study of parental wellbeing across sociodemographic groups and genders. *First*, this study uses data from the American Time Use survey, a contemporary, nationally representative sample of American parents and other-adults. *Second*, this study assesses respondents "experienced wellbeing" (i.e., how respondents felt in specific activities which took place during the past 24 hours) rather than using just one "evaluative assessment" of wellbeing (e.g., all things considered, how happy are you, would you say that you are very happy, pretty happy, or not too happy?"'), which has been shown to provide more reliable estimates of emotional wellbeing (Kahneman and Krueger 2006; Kapteyn et al. 2015; Krueger and Schkade 2008; Krueger et al. 2009; National Research Council 2012). *Third*, this study explores the links between parenting and *both* positive and negative dimensions of affective wellbeing. *Finally*, the present study has the potential of explaining previously documented fertility intentions and behaviors by

various socioeconomic groups (Edin and Kefalas [2005] 2011; Martin et al. 2017), as well as describing potential sources of positive/negative emotions that may have implications for people's mental and physical health (Thoits 2010).

The measure of SES used in this study is highest educational attainment because it is the best SES indicator of health as compared to income, wealth, and occupational prestige (Mirowsky and Ross 2015; Winkleby et al. 1992), a robust predictor of both income and occupational prestige (Mirowsky and Ross 2003), and an accurate predictor of experienced wellbeing (unlike income, which is a good predictor of evaluative but not of experienced wellbeing; Deaton 2007; Dolan, Peasgood, and White 2008; Kahneman and Deaton 2010; Kapteyn et al. 2015; Stevenson and Wolfers 2008). More germane to this study, this SES indicator was chosen because the returns to education go beyond material aspects like money or assets and include characteristics like patience, ability to solve conflict, critical thinking, resourcefulness, trust and social interaction (Mirowsky and Ross 2003; Oreopoulos and Salvanes 2009), skills and aptitudes that may affect not only parenting behavior (Augustine 2014; Bornstein and Bradley [2003] 2014; Kalil et al. 2012) but also how individuals experience parenting (or not parenting).

3.1 A CRITICAL REVIEW OF PRIOR RESEARCH ON PARENTAL WELLBEING AND SES

Parenting affects wellbeing in multiple ways. For example, parents have less freedom of choice and flexibility over their schedules (Cowan and Cowan 2000), have less disposable income for entertainment and going to restaurants (Stanley et al. 2003), and perform more housework (Nomaguchi and Milkie 2003). How costs and benefits associated with parenting vary by SES, however, is largely unknown. Despite significant

socioeconomic inequalities defining life in the U.S. today (Massey 2007), little work has directly examined how the experience of parenting (vs. not raising children) varies at different levels of the SES spectrum. The vast literature exploring the issue of parental wellbeing has used indicators of socioeconomic status as control variables and devoted little attention to its effect in the discussion section (for a review see Nelson et al. 2014). Thus, to my knowledge, this is the first study to empirically test variations in parental wellbeing (i.e., by comparing parents to other-adults) across different SES levels.

The small body of work which has explored the link between SES and parental wellbeing has done so by looking exclusively at parents (i.e., low SES parents vs. high SES parents). This approach is problematic because in the absence of a control group, one may observe an effect of SES which may exist regardless of individual's parenthood status. Further, to my knowledge most existing studies (for notable exceptions see Levy-Shiff et al. 1998; Nomaguchi and Brown 2011) also use cross-sectional data and do not capture parents before and after the transition to parenthood, and thus do not observe within person changes in wellbeing. In the present study, I am also using a source of cross-sectional data, however, I use non-parents as the control group within each SES level.

Overall, these studies found that increased SES negatively affects the parenting experience. Older studies found that among women, higher educational attainment was associated with having a less positive attitude towards motherhood (Hoffman, Thornton, and Manis 1978) and that high SES parents (both genders) reported less value and fulfillment in parenthood compared to low SES parents (Veroff, Douvan, and Kilka 1981). More recent work found that high SES parents (compared to low SES parents)

reported less meaning and purpose in life during time with children (Kushlev et al. 2012, Study 1). However, no association between SES and meaning during other activities (non-childcare activities) or between SES and happiness were found. Another study found a positive association between parents' reports of wanting or needing to engage in other activities when spending time with children and SES (Kushlev 2011). Similar findings are reported by Nomaguchi and Brown (2011) who find that highly educated mothers (i.e., a college degree or more) report less "new life" meaning from parenting and more role captivity, but also less anxiety about parenting, compared to lower educated mothers.

A different picture is painted by studies using evaluative measures of wellbeing (i.e., global assessment of happiness and life satisfaction), which by and large conclude that parenthood enhances global wellbeing for high SES parents but is detrimental for low SES parents. For example, using data from the World Values Survey, Margolis and Myrskylä (2011) found that parenthood reduces global happiness for low SES parents, especially among young parents and at higher parity levels; while Stanca (2012) in an analysis using the same data, found that parenthood enhances global happiness for higher educated parents. Consistent with these patterns, a study using the General Social Survey, found that parenthood reduces global happiness more strongly among the poor than the rich, particularly at higher parity levels (Alesina et al. 2004).

Regarding negative emotions, one of the few studies reviewing the challenges faced by low SES parents in balancing work and family, concludes that childcare stresses are stronger for low SES parents compared to high SES parents, due to their lower purchasing power, lower access to quality childcare, irregular and nonstandard work

schedules, and because many low SES parents are single mothers (Crouter and Boot 2004). However, the few studies which have included education as a control variable found no association between it and parental stress (Levy-Shiff et al. 1998; Ostberg and Hagekull 2000).

Thus, existing knowledge on parental wellbeing across the SES spectrum comes from few studies which, despite their contributions, suffer from several important limitations (for a full review see Nelson et al. 2014): they focus only on parents and particularly on women and middle class individuals; use small, non-representative samples; include SES as a control variable and do not return to it in their discussion section; or use data collected in the 80's and 90's, which is no longer representative of the current economic realities of parents and nonparents (Lino et al. 2017; Warren and Tyagi 2004) nor for social norms around parenthood and childlessness (Herbst and Ifcher 2016; Koropecj-Cox and Pendell 2007a). Further, most prior studies use global measures of wellbeing that do not account for the positive and negative sides of parenting (for a notable exception see Nomaguchi and Brown 2011), which is important, as prior research has indicated that parenting is a mixed bag of emotions (Nelson et al. 2014; Nomaguchi and Milkie 2003). Thus, we are still to understand how contemporary parents (compared to other-adults), and especially lower SES individuals, experience parenting.

3.2 THEORETICAL BACKGROUND

SES and the Effect of Parenting on Positive Affect

Drawing on previous literature I have identified several key factors which help me predict how the link between parenting and positive affect may vary by SES status.

First, parenting is a socially desirable role associated with higher social status and is perceived as an important milestone in the transition to adulthood (Barnett and Hyde 2001; Furstenberg et al. 2004; Thoits 1992). This is in part because caring for children introduces parents to a diversity of activities and challenges that are perceived as meaningful (Csikszentmihalyi 1990) and that offer the opportunity to prove that one can successfully perform this role (Delle Fave and Massimini 2004; Edin and Kefalas [2005] 2011). High status and successful accomplishments are both positively associated with wellbeing (Mirowsky and Ross 2003; Singh-Manoux, Marmot, and Adler 2005). Because low SES individuals have fewer avenues to success compared to their high SES counterparts (e.g. lacking a successful career role (Edin and Kefalas [2005] 2011; Furstenberg et al. 2004)) parenting may have more wellbeing benefits for low SES individuals than high SES individuals. Similarly, because their careers provide alternative sources of fulfillment, high SES individuals may perceive the experience of parenting as less meaningful and joyful (Hoffman et al. 1978; Jones and Brayfield 1997) compared to their lower SES counterparts.

Second, children represent a source of unconditional love and affection, intimacy and stimulation (Edin and Kefalas [2005] 2011; McMahon 1995; Nelson 2010) and giving and receiving affection is beneficial for wellbeing (Eysenck and Eysenck 1994; Taylor and Turner 2001). Qualitative work has documented that parents across the SES spectrum express joy and satisfaction about having a close relationship with their children (Edin and Kefalas [2005] 2011; Edin and Nelson 2013; Hertz, 2006; Nelson, 2010; Stone, 2007; Townsend 2010). However, because low SES individuals have less access to stable social relations like marriage (Smock, Manning, and Porter 2005) that are also a source of

love, affection and intimacy, they may benefit more from the emotional rewards of parenting compared to high SES individuals. Further, for low SES individuals, hardship like food insecurity, unsafe neighborhood, drug addiction, low education quality, family instability, and more, represents a daily reality. Thus, they may benefit more from parenthood because this social role offers an opportunity to start afresh and create one's own reality and life story (Edin and Kefalas [2005] 2011; Nelson 2010).

Third, parenting can be a source of meaning and purpose in life for parents because children provide structure to parents' daily activities and because, for most of childhood, the parent-child relationship is unidimensional, with children relying on their parents. Indeed, empirical work finds that adults raising children report more meaning than those not raising children (Nelson et al. 2013; Umberson and Gove 1989); and a sense of meaning has been positively associated with wellbeing (Ryff and Keyes 1995; Steger, Oishi, and Kashdan 2009). This may be particularly true for low SES parents as documented by in-depth interview studies where low SES mothers reported that "having someone counting on them made them behave more responsibly, see priorities more clearly, and feel less self-centered" (McMahon 1995), and that "Before, I didn't have nobody to take care of. I didn't have nothing left to go home for. Now I have my son to take care of. I have him to go home for. I don't have to go buy weed or drugs with my money. I could buy my son stuff with my money! I have something to look up to now." (Edin and Kefalas [2005] 2011).

Finally, a recent assessment of how parents evaluate their parenting performance revealed that high SES mothers hold themselves at higher standards compared to low SES mothers (Taylor, Funk, and Clark 2007). This finding is consistent with qualitative

work documenting that high SES parents practice a form of “intensive parenting” characterized by high emotional and time investments (Hays 1998), while for low SES mothers and fathers “being there” and “being emotionally available” to their children represents sufficient evidence of positive parenting behavior (Edin and Kefalas [2005] 2011; Edin and Nelson 2013). Thus, the adoption of an intensive parenting style by high SES parents may diminish their enjoyment of the experience, while lower SES parents may enjoy it more.

H1: Weaving this evidence together, *I expect that parenthood (vs. not raising children) will be associated with greater positive emotions for low SES parents than high SES parents.*

Despite strong evidence for this hypothesis, I acknowledge an alternative scenario. Next to success, parenting also offers opportunities for failure, which may be detrimental to wellbeing (Markowitz 1998) and which may be particularly sanctioning for low SES individuals who may have fewer social roles to compensate for potential failures (i.e., success in a professional role may buffer failure in the parenting role) (Barnett and Hyde 2001). Further, the culture of “intensive parenting” may foster emotional closeness between high SES parents and their children (Nelson 2010) which may also result in these parents reporting more positive emotions as compared to their lower SES counterparts. Relatedly, the opportunity to promote children’s development through extracurricular activities might yield a sense of happiness and accomplishment among high SES parents, who are more likely to enroll their children in such activities (Lareau 2003). Finally, a higher income allows individuals to outsource housework

responsibilities (Schneider and Hastings 2017) which may in turn give high SES parents more time and energy to enjoy their children.

Alternative to H1: Thus, my alternative hypothesis is *that parenthood (vs. not raising children) will be associated with greater positive emotions for high SES parents than low SES parents.*

SES and the Effect of Parenting on Negative Affect

Next, I turn my attention to variations in the link between parental status and negative emotions across the SES spectrum.

First, in recent decades, high SES parents (especially mothers) have adopted an intensive form of parenting that is both time and attention demanding (Hays 1998; Lareau 2003; Nelson 2010; Stone 2007) in an effort to foster their children's talents and maximize their chances to succeed (Lareau 2003). On average, higher educated parents spend more focused time (i.e., childcare is their main activity) with their children (Bianchi et al. 2004; Bianchi et al. 2006; Sayer et al. 2004) and dedicate this focused time to the types of activities related to their children's current developmental stage (Kalil et al. 2012). This intensive style of parenting may lead to greater role conflict for high SES parents, when they cannot spend the desired amount of time with their children (DeVoe and Pfeffer 2011; Hamermesh and Lee 2007; Hochschild and Machung 2012), and higher career costs when they do increase their time with their children (Rizzo et al. 2013). Further, this parenting style may also be fatiguing and emotionally draining because high SES parents strive to maintain a democratic relationship with their children (i.e., children are encouraged to ask questions, challenge rules and authority figures; Lareau 2003). In

contrast, there is a clear hierarchical relation between lower SES parents and their children, who are discouraged from challenging authority figures, including their own parents (Lareau 2003). Thus, parents at the upper end of the SES spectrum may be more stressed and more fatigued because of the “hands on” parenting style they practice, and because of the potential conflict between parenting and their professional role (Emmons and King 1988; Nelson 2010), compared to their lower SES counterparts.

Second, parenthood is associated with opportunity costs in terms of career, education and income (Becker 1981; Mincer 1963). Education is associated with higher status and better paid employment opportunities (Ross and Reskin 1992), which come with greater demands in the form of work commitment (e.g., long work hours, travel) and career expectations (e.g., high productivity and promotion goals) (Blair-Loy 2003; Stone 2007). Although high SES parents may have more access to family friendly policies, the fast paced, competitive environment in which most of them work may come with an elevated level of stress and pressure to perform (Jacobs and Gerson 2004; Schieman, Glavin, and Milkie 2009). Moreover, high SES parents (and especially mothers) are motivated in their intensive parenting style by the belief that such efforts are beneficial for their children’s wellbeing and academic success (Hays 1998; Lareau 2003). Thus, when confronted with the high demands of their professional life, high SES parents (especially women) may feel frustrated about slowing down their career growth (Blair-Loy 2003) and conflicted about not being able to dedicate more time to their children, and, as a result, experience more stress in both areas of life, which can negatively affect wellbeing (Simon 1992, 1995).

Finally, parenting may be associated with additional psychological costs stemming from two sources. On one side, parents may sacrifice their personal freedom by organizing their life and choices around the needs and wants of the children and less around one's personal preferences (Twenge et al. 2003). On the other side, the permanence of the parenting role may lead to feelings of "role captivity" (Pearlin 1989). High SES parents may experience these psychological costs more because they have more opportunities to feel like they are missing out (e.g., opportunities to go on vacation, to restaurants, job promotions) and because having more options to choose from has been associated with heightened negative emotions (Frederick et al. 2009; Schwartz and Ward 2004).

H2: Taking all this evidence together, *I expect that parenthood (vs. not raising children) will be associated with greater negative emotions for high SES than low SES parents.*

Again, I acknowledge an alternative scenario. First, children introduce financial strain due to the costs of child care, food, health care and education (Angeles 2009; Peiro 2006; Ross and Willigen 1996; Umberson and Gove 1989), which has well-documented negative implications for wellbeing including psychological distress and depression (Bird 1997; Jackson et al. 2000; Mirowsky and Ross 2003). Unlike other developed countries, parents in the U.S. take on most of the costs of childrearing as support from governmental or corporate sources is low (Glass et al. 2016). Because low SES individuals have less money, assets and smaller networks that can provide financial support (Bengtson 2001; Crouter and Booth 2004) they may have a harder time paying for children's necessary expenses and the experience of financial strain may be more

chronic and more acute than for their higher SES counterparts. Qualitative work suggests that to provide better food, clothing, housing, and education for their children, low SES parents will sacrifice their own needs (Edin and Kefalas [2005] 2011). While high SES parents may encounter some of the same financial burdens (Warren and Tyagi 2007) they will likely experience lower worries related to the quality of their children's healthcare, safety and education compared to low SES parents, because their higher purchasing power will allow them to secure spots in better schools, buy better health insurance, and live in safer neighborhoods (Crouter and Booth 2004).

Second, education is associated with a range of resources, including increased knowledge and skills, wider social networks, stronger social support, better ability to cope with stress, and healthier behaviors (Ross and Wu 1995). Such resources, in turn, could potentially blunt the negative impacts of parenthood on adults' wellbeing for high SES individuals (Augustine 2014). Further, high SES individuals benefit from more social support and a more extensive network than low SES individuals (Bianchi et al. 2006; Edin and Kefalas [2005] 2011; Harknett and Hartnett 2011). Albeit low SES individuals are also embedded in their networks; because resources at the community level are low, these ties may not always benefit wellbeing as they both support and drain individual's personal resources (Stack 1974). Finally, although high SES individuals may experience work related stresses, low SES individuals are more likely to occupy positions with insufficient and variable work hours, and little schedule flexibility, which are also related to higher stress (Dewa et al. 2010).

Alternative to H2: Thus, my alternative hypothesis is *that parenthood (vs. not raising children) will be associated with greater negative emotions for low SES than high SES parents.*

The Role of Gender

The existing literature on parental wellbeing has either not explored the moderating effect of gender or has focused primarily on women (for a review see Hansen 2010; Nelson et al. 2014; Umberson et al. 2010). As a result, we currently know little about the wellbeing of men. Because expectations and norms about parenthood (and nonparenthood) are different for men and women (Koropeckyj-Cox and Pendell 2007a), it is possible that gender will moderate the links between parenting and emotional wellbeing for different SES groups. For example, high SES individuals hold themselves to high career standards (Schieman et al. 2009), while high SES mothers hold themselves to greater parenting standards as well (Taylor et al. 2007). Thus, when faced with competing requests from these highly demanding roles, parenting may be particularly taxing (i.e., more stress and fatigue) for high SES mothers. Further, because the careers of low SES men were hit the worst by the decline of the manufacturing sector, and high SES men continue to have access to professions that can be sources of status and positive self-esteem, parenting may be particularly rewarding (i.e., more happiness and meaning) for low SES men.

3.3 METHODS

Data

For this project, I used the same source of data as for Study 1 (see page 15). In the interest of a parsimonious presentation, I will not describe it again here.

Sample

The sample for this study was built by pooling across all three waves (2010, 2012 and 2013) in which the Wellbeing Module was conducted ($n = 102,796$ activities). Next, I limited the sample to only include respondents ages 21 to 50, for a total of 52,036 time-use activities and 17,481 respondents. Further, because the focus of this study is on adults who parent own household children, and because other parenting structures are theoretically different and should be studied separately, I dropped activity reports by respondents who reported no household children younger than 18, but reported: an own household child older than 18 ($n = 1,552$); an own non-household child younger than 18 ($n = 768$); a non-own household child younger than 18 ($n = 815$); a coresident grandchild ($n = 134$); a coresident foster child ($n = 47$); or any other relationship to a child younger than 18 (e.g., sibling) ($n = 477$)¹.

Note that the ATUS does not record if a respondent has ever had a birth or adopted a child, but only if they had a “child” living in the household and their relationship to the child. Thus, I cannot fully distinguish between “non-parents” (respondents without biological or adoptive children) and “empty-nesters” (i.e., respondents who are parents but whose children are grown and live outside of the home; a limitation shared by other datasets used in recent studies; e.g., Deaton and Stone 2014; Glass et al. 2016; Herbst and Ifcher 2016). For this reason, in the remainder of this paper, I refer to the “non-parents” group as “other-adults”. Limiting the study sample at age 50 is consistent with other studies (e.g., Aassve et al. 2012), and was also meant to help reduce the risk of including “empty nesters” into the “other-adults” sample (especially among lower SES adults who complete their fertility earlier in the life courses; Daugherty

and Martinez 2016). However, because high SES adults complete their fertility later in life (Daugherty and Martinez 2016), I assess the robustness of the results to older (i.e., 58) age specifications.

Measures

The analysis includes two *independent variables*. *Parenting status* is the focal independent variable and it reflects two statuses: *parents* and *other-adults*. *Parents* are respondents between 21 and 50 years of age with own household children younger than 18 years (n=10,915). *Other-adults* are respondents between 21 and 50 years of age who have no own household children younger than 18 years (n=5,254). As described above, respondents who reported only having own children not in the household; grandchildren; foster children or own household children older than 18, constitute special parenting categories and were dropped from the parent sample. *Education status* is the second independent variable. It is based on respondents' reports of their highest level of educational attainment and dummy coded into one of four categories (1=less than a high school degree, 2=high school degree, 3=some college, 4=college degree or higher).

Dependent variables. The outcome variables are 5 dimensions of subjective wellbeing: two *positive emotions* (i.e., happiness and meaning) and three *negative emotions* (i.e., sadness, stress, and fatigue). For each of the three activity reports, which were randomly selected from the respondent diary, respondents were asked to assess on a 7-point scale (0= "not at all" to 6= "very much") how s/he felt (i.e., happy, tired, stressed, sad, pain, meaningful) about each of these activities. These measures of affective wellbeing were modeled based on the Princeton Affect and Time Use Study (Krueger et al. 2009). Activities shorter than 5 minutes, grooming, personal activities, and sleeping

were not eligible for the Wellbeing Module. The order in which each dimension of wellbeing was presented to respondents was randomized, although *meaning* was always asked about last. In the present study, measures of pain were excluded because there is little theoretical ground to expect significant variations by parental status.

Individual level-covariates. The analysis accounts for a number of factors which may confound the association between parental status, education attainment and wellbeing (see Nomaguchi and Brown 2011, and Umberson et al. 2010 for a comprehensive review) beginning with *respondent characteristics*: respondent's chronological age (measured continuously), gender (0 = *male*, 1 = *female*), race or ethnicity (dummy coded as *White non-Hispanic*, *Black non-Hispanic*, *Asian non-Hispanic*, *Other non-Hispanic* and *Hispanic*), presence of spouse or partner in the household (0 = *no*, 1 = *yes*), employment status (dummy coded as *full-time employed*, *part-time employed*, *unemployed*, and *not working*), school enrollment (0 = *no*, 1 = *yes*); *household characteristics*: family income (dummy coded into one of five categories: <\$24,999, \$25,000-\$49,999, \$50,000-\$99,999, >\$100k), geographic region (dummy coded as *West*, *Midwest*, *North*, and *South*), whether they lived in a metropolitan area (0 = *no*, 1 = *yes*); and *survey characteristics*, including whether the diary was recorded on a weekday (0 = *no*, 1 = *yes*), on a holiday (0 = *no*, 1 = *yes*), in a summer month (0 = *no*, 1 = *yes*), and the year of the interview (dummy coded); as well as the order in which the wellbeing questions were asked (dummy coded as 1st, 2nd – 5th).

Activity level-covariates. The models include controls for the following activity characteristics, which may influence how one feels about the activity (Stone et al. 2012; Campos et al. 2013): the duration of the activity (measured continuously, in *minutes per*

day); whether the activity took place at home or somewhere else (0 = *somewhere else*, 1 = *at home*); and the time of day in which the activity took place (4:00 a.m. to 8:59 a.m., 9:00 a.m. to 13:59 p.m., 14:00 p.m. to 16:59 p.m., 17:00 p.m. to 20:59 p.m., 21:00 p.m. to 3:59 a.m.).

Analysis Plan

The unit of analysis is the activity record. Respondents who were selected to participate in the wellbeing module, had three activity records selected for this part of the interview. However, a small amount of missingness on the dependent measures exists because some respondents did not answer all questions. For instance, some respondents have refused to answer how happy they were when traveling related to socializing or communicating. Thus, between one and three activity records are nested within each respondent.

The main research question of this study is whether parenthood (compared to not raising children) is associated with greater or lower returns to emotional wellbeing at various education levels. To test this question, I first conducted a descriptive analysis followed by multivariate analysis using linear regression with random effect models. I began by describing the characteristics of the full sample, and of each education group by calculating weighted means and percentages for all relevant individual and survey-level characteristics (e.g., age, gender, income, race, etc.). For the descriptive analysis, I estimated weighted means of the five emotions (i.e., happiness, meaning, stress, sadness, fatigue) for the full sample, the parent and the other-adult sample, and at each education level (i.e., less than high-school degree, high-school degree, some college and college degree or more). Next, I tested if the differences in emotional wellbeing between parents

and other-adults were statistically significant. All analyses reflect differences in “overall” affective wellbeing because wellbeing estimates were averaged across all available activity reports. While theoretically relevant, due to sample size limitations I was not able to further investigate wellbeing differences during specific activities (e.g., nonmarket work or leisure time).

For the multivariate analyses, in *Model 1* I began by estimating a baseline for the association between parental status and each emotional dimension using linear regression models including the full set of controls described above, with each emotion being estimated by a separate model. Next, in *Model 2* I included an interaction term between the two independent variables: parental status (0= other-adults; 1= parents) and education level (1=less than high school degree; 2=high school degree; 3= some college; 4= college degree and up) to assess whether the patterns I observed varied for respondents with different education levels. Following the estimation of each model, I then calculated average marginal effects (AMEs) to assess if the size and direction of the parenting wellbeing gap was the same at each education level (Esarey and Sumner 2015). Next, for the groups where a significant effect was found (i.e., emotional wellbeing was significantly different for parents vs. other-adults) I calculated the difference in difference to assess if the size of these gaps was statistically different from each other. This analysis was conducted for the full sample, and separate, for women and for men. These models clarified the question of how positive and negative emotions vary by parental status, and by education level, and to see how the results compare when looking at each gender separately.

To account for the hierarchical structure of the data (i.e., multiple activity records nested within individuals) I used random effects, which adjust for non-independence and correlated measurement error in the reports. Random effects also adjust for unobserved heterogeneity in the wellbeing reports, assuming that all confounding factors correlated with the predictor variables are accounted for (Allison 2009; Laird and Ware 1982). Concerning the treatment of missing information, the ATUS contains a low amount of missing information, and only on the household income variable, in less than 1% of cases. Because previous work suggests that missingness on this variable violates the MAR assumptions (Abraham et al. 2006), I used listwise deletion instead of employing multiple imputation techniques, which are typically used when handling missing data (Allison 2002). All analysis was conducted using Stata 14 and included the full set of controls presented above.

3.4 RESULTS

Descriptive Information on Education Subsamples

Table 3.1 presents the weighted means for each dimension of emotional wellbeing as well as the socio-demographic characteristics of the full sample and by education level.

Overall, I find that reports of positive emotions (i.e., happiness and meaning) decrease as education increases. Thus, less educated respondents reported more happiness and meaning, than those with higher education levels. Lowest educated respondents (i.e., less than a high school degree) also report greater levels of sadness compared to more educated respondents. For negative emotions, the pattern is not as clear. For stress, the lowest and highest educated groups report greatest levels, while for fatigue the lowest

educated respondents report greatest levels, while differences are small among the more educated groups.

Turning to socio-demographic characteristics, across education groups, the average age is 35 years old, and about half of each sample is female with slightly more females in the higher educated groups. As expected, a larger share of higher educated respondents reported household incomes over \$50,000 per year (76% for college educated, 53% for some college) compared to lower educated respondents (39% for high school degree, and 17% for less than a high school degree). The likelihood of working full-time is greatest for the highest educated respondents (75% for college educated), while the likelihood of being unemployed or not working is greatest for the lowest educated respondents (13% and 29% for less than a high school degree). Part-time employment is similar across education groups (average around 15%). School enrollment is reported primarily by respondents with some college or a college degree (20% and 10%) while a very small share of lower educated respondents reported being enrolled in school (1% of respondents with less than high school, and 3% of respondents with a high school degree). Regarding racial and ethnic identity, White non-Hispanics (73%) and Asians (10%) are over represented in the college educated group, while Hispanics (56%) are overrepresented in the lowest educated group. A similar share of respondents, across education groups, reported that a spouse or a partner was present in the household (average around 60%). Finally, parents at the lowest education level report having two own children living in the household, while all other groups report having slightly less than two own children. About half of each group reported having a youngest child aged 0-4, and, compared to the other groups, a smaller share of parents with a college degree

reported having a youngest child ages 13-17 (13% vs. 18% for those with a highschool degree or some college); reflecting the fact that these individuals transition into parenthood at a later time in the lifecourse.

In Table 3.2, I report the results of the bivariate analysis aimed at describing the link between parental status and affective wellbeing by adult's education level. Bivariate results show that overall, happiness estimates decline as education increases, for both parents and other-adults. The same is true for reports of meaning. For stress and fatigue, differences are generally small, but respondents with a college degree and up reported most stress across parenting groups.

The bivariate analysis aimed at describing how parenthood is experienced by adults across education levels reveals that parents are happier than other-adults across all education levels. I find the same effect for meaning. However, the same uniformity is not observed when looking at negative emotions. Across all education groups, except "some college", parents report less sadness compared to other-adults. Only parents who report some college education report significantly more stress compared to their peers who are not raising children. Finally, college educated parents report less stress than other-adults with a similar education level. For fatigue, I find no difference by parental status for lowest educated respondents. Although parents with a highschool and some college degree report more fatigue than other-adults, parents at the highest education level report less fatigue compared to other-adults. Next, I examine if these patterns hold when using a multivariate approach where I adjust for non-independence in the activity reports and account for individual and activity-level covariates.

Multivariate Results Predicting Parents Affective Wellbeing by Education Level

The first half of Table 3.3 shows results from Model 1 where I estimated regression models with random effects for the relations between parental status and affective wellbeing during *all time* (i.e., all activity records taken together). When individual and activity-level factors are controlled for, I find that parents report both more happiness ($B = .18, SE = .03$) and meaning ($B = .49, SE = .03$), less sadness ($B = -.07, SE = .02$), but also more stress ($B = .12, SE = .03$) and fatigue ($B = .09, SE = .03$). The main effect of education level on affective wellbeing reveals that respondents with lower education levels (i.e., some college or less), compared to those holding a college degree or higher, report more happiness and meaning. For stress, only respondents with a high school degree or some college reported significantly less stress than the highest educated group, while no significant differences were found for fatigue.

The second half of Table 3.3 shows regression estimates from Model 2 where I included the interaction term between parental status and education level. Based on this model I calculated average marginal effects (AMEs), which were used to calculate the difference in affective wellbeing between parents and other-adults at each education level. To facilitate comprehension, I present the results in Figure 3.1. A positive column indicates that parents report higher levels of that emotion than other-adults. The reverse for a negative column. Results suggest that parents report significantly more happiness and meaning than other-adults at all education levels (the difference in difference analysis showed that none of these gaps were significantly different from each other). Parents are also less sad than other-adults across education levels, except for those reporting some college where I find no significant difference. For negative emotions, only higher

educated parents (those with some college education and up) report both more stress and fatigue than other-adults (the difference between the size of the gaps for respondents with some college education vs. a college degree was not statistically significant). No differences in negative emotions were found by parental status for adults reporting a high-school degree or less.

Comparing Parents Wellbeing by Education level for Women and Men

In order to determine if these patterns are driven by women, or if they can be generalized to men as well, I repeated the multivariate analysis steps separately on the women only sample and the men only sample. Results from Model 1, including the main effect of parental status and education level plus controls, for women and men are reported in Tables 3.4 and 3.5. Consistent with the results from the full sample, I find that both mothers and fathers report more positive affects (i.e., happiness and meaning) than their peers not raising children. Interestingly, I observe that it is only mothers who report higher levels of stress and fatigue than women not parenting. For fathers (compared to men not parenting), I find a marginally significant effect for stress but no significant difference for fatigue.

Results from Model 2, including the interaction of parental status and education level plus controls for both women and men, are reported in the second half of Tables 3.4 and 3.5. When I include the interaction term in the model, the strength of the results increases and also the coefficient for stress becomes significant for men; although, for fatigue, there continues to not be a significant difference by parental status for men.

Similarly to the full sample, I present the results for the difference in average marginal effects (AMEs) in Figure 3.2 (women only) and Figure 3.3 (men only). For higher educated women (i.e., some college education and higher), parenting was associated with more happiness and more meaning, but also more stress (the difference between the size of these gaps was not statistically significant). Parenting is associated with more fatigue only for women with a college degree or more. For lower educated women, parenting is not associated with an increase in experienced positive emotions (except for more meaning and less sadness for mothers with a highschool degree) or in negative emotions. Taken together, with few exceptions, there are no significant differences in affective wellbeing between mothers and women not raising children if their education attainment is a highschool degree or less. It seems that for women, results at the population level are driven by women with higher education (i.e., some college education and higher). For this group, mothers experience both more positive affect, but also more negative affect than women not raising children.

For men, parenting (vs. not raising children) was associated with more happiness, across education groups, but the size of the difference was largest for lowest educated men. Similarly parenting was also associated with more meaning across education groups (although the size of the gap was not significantly different between groups). For negative emotions, similar to the patterns found for the full sample and for women, parenting was associated with more stress only for higher educated men (i.e., some college education or more; the size of the gaps was not significantly different), while only fathers with some college education reported significantly more fatigue than men not raising children. Taken together, fathers at the lowest education level seem to benefit

most from their parenting status, by enjoying higher levels of happiness and meaning than higher educated fathers (some college education or more). Similar to mothers, at higher education levels, fatherhood (vs. not raising children) was associated with more positive but also more negative affect.

Robustness Analyses

Partnership status. Prior work suggests that unpartnered mothers may experience higher levels of parental stress than partnered mothers, and that higher education levels may buffer this effect (Cooper et al. 2009). Relatedly, other work finds a neutral or positive effect of parenting on partnered parents, and mainly a detrimental effect on the wellbeing of single, but not of the partnered, parents (for a review see Hansen 2012; Twenge et al. 2003). Thus, single parents may be confronted with higher strains than partnered parents, and this may be especially true for single mothers who may experience high financial and social costs (Hansen 2012). To address this possibility, and because most single parents are women (Cherlin 2010), I repeated the analysis on partnered mothers and women not raising children. Results are presented in Table 3.6 and Figure 3.4. Similar to the patterns observed when using the main sample (all women taken together regardless of partnership status), I find that partnered mothers report more positive affect (i.e., happiness and meaning) and less sadness compared to partnered women not raising children. In Model 1, there is no significant difference by parental status for negative emotions. However, in Model 2, where I include the interaction term between parental status and education level, partnered mothers report marginally more stress and significantly more fatigue compared to their peers not raising children. Next, I calculated the difference in average marginal effects (AME's) by education level (see

Figure 3.4) and found similar patterns to the ones reported in the main analysis. Specifically, for partnered women, parenting is associated with more happiness and meaning only at the higher levels of the education spectrum (i.e., some college education and more). Again, for partnered women, parenting is associated with more negative emotions (i.e., stress and fatigue) only for women at the highest levels of SES (i.e., college degree or more). Taken together, I conclude that, for women, the patterns reported in the main analysis are not driven by partnership status.

Residential status. The parenting experience is likely to differ for parents who share residency compared to those who do not (Evenson and Simon 2005). This may be because nonresidential parents spend less time with children, do not engage in the daily routine of childrearing or the same responsibilities for children's safety and wellbeing as residential parents do (Sayer et al. 2012). Therefore, compared to residential parents, nonresidential parents may experience less of the benefits (happiness and meaning) but also less of the costs of parenting (stress and fatigue). The main study sample includes only parents who have at least one own-household child younger than 18. Thus, nonresidential parents of minor children were dropped from the sample. To fully understand if the results I find are a function of residential status, I repeated the analysis on only nonresidential fathers and non-fathers (the focus is on men because nonresidential parenting affects primarily fathers; Cherlin 2010). This allowed me to determine if the patterns observed for men are true only for residential fathers, or if they apply to nonresidential fathers as well. Results from Models 1 and 2 presenting the relationship between being a nonresidential father and wellbeing (compared to men not raising children), net of controls, and subsequent post-estimation tests are presented in

Table 3.7 and Figure 3.5. Overall, I find no difference in affective wellbeing between nonresidential fathers and men not raising children. These results should be received with caution because the sample size for nonresidential fathers broken down by education levels was small (i.e., 75 activities for less than a high school degree; 243 for high school degree; 156 for some college and 164 for nonresidential fathers with a college degree or more).

Sample age. By cutting the sample at age 50 I aimed to limit the share of empty nesters (respondents whose children are over 18 years old and live outside the home) who may pass as nonparents (respondents who never had children). However, in doing so, I left out parents who, compared to the full sample, were more likely to be highly educated, male, and to work full-time. Thus, to address the possibility that results may be different for the highest educated parents, I replicated the analyses on an older sample aged 21-58. By extending the upper age limit 973 parents and 2,928 other-adults were added to the study sample. Overall, I find that the patterns reported in the main analysis (sample aged 21-50), were very similar to those observed when using the sample ages 21-58 (results not shown but available upon request).

3.5 DISCUSSION

For the past several decades, the academic community and the public have been interested in understanding why people continue to have children in a time when children are no longer economic assets to their parents. Theoretical work has suggested that in the 21st century, children's value to their parents is primarily emotional (Morgan and King 2001; Zelizer 1994), and thus people may continue to have children because children

make them happy. Further, while consensus has yet to be reached, recent empirical work on this topic reveals that parenthood (vs. not raising children) is actually associated with both rewards and costs to adults' emotional wellbeing (for reviews see Nelson et al. 2014; Umberson et al. 2010). However, we know very little about how these costs and rewards are distributed across various socio-economic groups. Such an analysis was necessary if we are to understand fertility behaviors by individuals at different levels of the SES spectrum. For example, both policy makers and the public continue to be puzzled by why low SES individuals have children despite their unfavorable economic circumstances (Edin and Kefalas [2005] 2011; Edin and Nelson 2013). Just as puzzling is a more recent demographic trend where a growing number of adults, primarily high SES, say that they intend not to have children (Martin et al. 2017). Why would higher SES individuals forfeit parenthood if children increase happiness and when this group has fewer economic concerns? This study aimed to explain these demographic trends by using a new source of data and examining how the costs and rewards associated with raising children vary at different levels of SES.

First, the analyses revealed that across education levels, parents are happier, and experience more meaning, than adults not raising children. However, contrary to my first hypothesis (and the alternative to the first hypothesis), the size of the gaps in positive emotions (parents – other-adults) did not vary by education level. Stated differently, at the population level, parenthood (vs. not raising children) was not associated with greater positive emotions for low SES than high SES parents. Thus, I did not find that affluence reduces the rewards (happiness and meaning) of parenting for high SES parents compared to low SES parents, as other work has suggested (Kushlev 2011; Kushlev et al.

2012), or that higher education levels impoverish parenting rewards (Hoffman et al. 1978; Jones and Brayfield 1997). The only emotions that did support this expectation was lack of sadness, where the gap between parents and other-adults was largest at the lowest SES level (i.e., less than a high school degree).

Second, consistent with my second hypothesis, I found that parenthood (vs. not raising children) was associated with greater negative emotions for high SES than low SES parents. In fact, only higher educated parents (i.e., some college degree or more) reported more stress and fatigue compared to similarly educated adults not raising children. Thus, for low SES parents (vs. not raising children) parenting is associated with more positive emotions but no difference in negative emotions. However, as results broken down by gender revealed, this was only true for low SES men. Nevertheless, considering the relatively smaller sample of women not raising children who reported less than a high school degree (compared to the other groups; n activities = 312), this analysis should be replicated in future research using data that oversamples respondents with low education in order to rule out the possibility of a type II error (i.e., failing to observe an effect when an effect exists due to small sample size). This finding may explain why low SES adults have children in the face of unfavorable economic conditions: doing so is beneficial for their wellbeing. To my knowledge this is one of the first studies that empirically tests - using nationally representative data - and brings support to qualitative work arguing that for economically disadvantaged individuals, children are a source of positive affect (joy, purpose in life; Augustine et al. 2009; Edin and Nelson 2013). Further, this is also one of the first studies to provide a potential explanation for recent increases in childlessness, especially among higher SES

individuals (Martin et al. 2017). The results show that for high SES individuals parenting (vs. not raising children) is associated with both more positive and more negative emotions. Thus, for high SES individuals who prioritize avoiding pain over maximizing pleasure, forfeiting parenthood may be a rational decision because while doing so may not benefit their emotional wellbeing, it may also not be detrimental.

The intensive parenting style practiced by high SES parents may help explain both the boost in positive emotions and the surge in negative emotions. Specifically, intensive parenting is characterized by a democratic parent-children relationship and a “child as friend” relationship, which may lead to increased intimacy and closeness with one’s child and as a result an increase in feelings of happiness and meaning (Lareau 2003; Nelson 2010; Nomaguchi and Brown 2011). This intensive parenting style is also characterized by high attention and time demands, which may help explain why only parents with some college education or more reported greater negative emotions (more stress and more fatigue) compared to similarly educated adults not raising children. Further, while older, more traditional work on the link between education and stress emphasizes the resources that individuals derive from their education (e.g., more money and assets, greater social status, patience, critical thinking), and suggests that these resources will help shield them from stressful experiences (Ross and Mirowsky 2003), my results bring support to more recent theoretical developments which argue that next to resources, education is also associated with demands (mostly work related: long work hours, managerial responsibilities, and expectations of continued creative output) which translate in elevated levels of stress (Nomaguchi and Brown 2011; Schieman, Whitestone, and Van Gundy 2006; Schieman et al. 2009).

Third, I found that these patterns are not the same for men and women, thus bringing support to theories highlighting how gender is an important moderator at the intersection between parental wellbeing and SES. Specifically, for women, parenthood seems to exacerbate positive and negative emotional wellbeing only for those at the higher SES levels (i.e., some college education or more); for women at the lower SES level (i.e., a high school degree or less) parenthood seems to make little to no difference in experienced wellbeing (with the exception of meaning and lack of sadness which mothers with a high school degree reported more of compared to similarly educated women not raising children). For men however, the results paint a different image. I found that parents experience more happiness (which mirrors the main effect, and the results broken down by gender), but these patterns are most pronounced for men at the lowest SES level (i.e., less than a high school degree). The fact that the happiness gap in parental wellbeing is largest for lowest educated men supports qualitative evidence that the rewards to parenthood are particularly beneficial for those with fewer alternative sources of success. For negative emotions, similar to the overall patterns and the ones found for women, parenthood exacerbates stress only for higher educated men (i.e., some college education or more). Taken together, the findings show similar trends for high SES men and women (parenthood exacerbates both positive and negative emotions), while for low SES parenthood makes little difference for women's emotional wellbeing, while for men it increases positive emotions but has little impact on negative emotions.

Finally, the robustness analyses revealed that for nonresidential fathers, parenthood does not impact affective wellbeing. However, due to small sample sizes this finding should be approached with caution. Further, the auxiliary analyses on partnered women,

revealed very similar patterns to the ones reported in the main analysis, suggesting that, for women, the findings reported in this study are not driven by partnership status but by differences in SES.

This study makes several contributions to the study of parental wellbeing. *First*, this is one of the first studies to provide insights into variations in parental wellbeing across SES groups based on estimates from a contemporary, nationally representative sample of Americans, a perspective which has been missing from previous literature, and which is sorely needed considering recent changes in fertility trends and growing socio-economic inequalities at the population level. *Second*, this study provides an empirical test of theoretical work arguing that parenthood is associated with both costs and rewards to individuals' wellbeing, by examining both positive and negative indicators of emotional wellbeing in the same analysis. *Finally*, this study helps improve our understanding of parental wellbeing for men, a subsample which has received little attention in previous work.

Despite its contributions, this study suffers from several limitations which must be acknowledged. First, the ATUS is a cross-sectional study. A longitudinal design containing measurements of wellbeing at multiple time points for the same respondents would allow me to investigate issues like selection into parenthood (i.e., the idea that happy people self-select into parenthood, thus explaining why parents report more happiness than adults not raising children). Second, I examined experienced wellbeing across all activities reported over a full day. Because of sample size limitations I was not able to investigate variations in affective wellbeing across specific activity types (like paid work, housework or leisure time) which from a theoretical perspective may be

experienced differently by parents (and other-adults) from various SES groups. Third, the ATUS does not provide information on fertility intentions. Therefore, I cannot account for the effect that voluntary or involuntary entry into parenting or non-parenting may have on adults' emotional wellbeing. This is relevant because evidence exists that among women, childlessness is particularly stressful for low SES women (McQuillan et al., 2003). Finally, parenting responsibilities change as children grow older (Galinsky 1987; Kalil et al. 2012) and the emotional costs and benefits associated with the parenting experience may vary across childhood stages (e.g., infancy and early childhood may be both more taxing and more rewarding for parents than elementary school or adolescence) and by SES group (e.g., adolescence may be more stressful for high SES parents -than low SES parents- because their children prepare to enter college, although low SES parents may also find this to be a stressful time as their children begin to navigate employment responsibilities). Because of sample size limitation I did not explore how differences in the parental wellbeing vary at specific parenting stages, but I recognize this as a fruitful avenue for future research.

In sum, this study provides new insights into how the experience of parenting is affecting adults' daily lives, highlighting important differences in the ways that costs and returns to parenthood are distributed across SES groups.

Table 3.1 Characteristics of Study Sample (Means and Percentages) by Education level

	Less than HD	HD	Some College	CD and Up	Full sample
<i>Emotional Wellbeing</i>					
Happiness	4.47	4.32	4.33	4.10	4.25
Meaning	4.63	4.38	4.24	4.12	4.27
Sadness	0.92	0.61	0.50	0.53	0.58
Stress	1.67	1.52	1.54	1.77	1.63
Fatigue	2.52	2.37	2.46	2.42	2.43
<i>Respondent Characteristics</i>					
Age	35.56 (8.31)	35.82 (8.85)	34.01 (8.89)	35.71 (7.87)	35.26 (8.50)
Female	0.49	0.45	0.53	0.54	0.51
Male	0.51	0.55	0.47	0.46	0.49
Hh income <\$25k	0.49	0.28	0.19	0.07	0.20
\$25k to 49.99k	0.33	0.32	0.27	0.15	0.24
\$50k to 99.99k	0.14	0.30	0.37	0.37	0.33
\$100k+	0.03	0.09	0.16	0.39	0.22
White Non-Hispanic	0.31	0.60	0.66	0.73	0.64
Black Non-Hispanic	0.10	0.14	0.14	0.08	0.12
Asian Non-Hispanic	0.02	0.02	0.04	0.10	0.05
Other Non-Hispanic	0.02	0.02	0.02	0.01	0.02
Hispanic	0.56	0.22	0.15	0.07	0.18
Student	0.01	0.03	0.20	0.10	0.10
Full-time employed	0.43	0.59	0.58	0.75	0.63
Part-time	0.15	0.14	0.18	0.12	0.15
Unemployed	0.13	0.09	0.08	0.03	0.07
Not working	0.29	0.17	0.15	0.10	0.15
Spouse in house	0.64	0.59	0.55	0.69	0.62
<i>Household Child Characteristics</i>					
Youngest child 0-4	0.50	0.43	0.44	0.47	0.45
Youngest child 5- 12	0.35	0.40	0.39	0.40	0.39
Youngest child 13-17	0.15	0.18	0.18	0.13	0.16
Number of children	2.02	1.83	1.79	1.85	1.85
N respondents	1,254	3,590	4,669	6,656	16,169
N activities	3,730	10,699	13,911	19,889	48,229

Note: Estimates for region, metropolitan area, season, and survey year not shown. HD= high school degree; CD= college degree; k=thousand; Hh=household. Standard deviations are reported in parentheses. 2010, 2012 and 2013 ATUS wellbeing sample, N's are unweighted, means and percentages are weighted.

Table 3.2 Means for Affective Wellbeing Measures by Adult's Parenting Status and Education

	Full sample		Parents		Other-adults		Diff. P - O
Variable	Mean (SD)		Mean (SD)		Mean (SD)		
Less than Highschool Degree							
<i>Happiness</i>	4.47	(1.78)	4.65	(1.72)	4.09	(1.85)	0.56*
<i>Meaning</i>	4.63	(1.97)	4.85	(1.84)	4.14	(2.17)	0.71*
<i>Sadness</i>	0.92	(1.71)	0.84	(1.68)	1.10	(1.78)	-0.26*
<i>Stress</i>	1.67	(2.05)	1.66	(2.04)	1.71	(2.08)	-0.06
<i>Fatigue</i>	2.52	(2.11)	2.49	(2.12)	2.60	(2.08)	-0.11
N activities	3,710		2,782		928		
Highschool Degree/GED							
<i>Happiness</i>	4.32	(1.69)	4.37	(1.65)	4.24	(1.73)	0.14*
<i>Meaning</i>	4.38	(1.90)	4.53	(1.83)	4.16	(1.98)	0.37*
<i>Sadness</i>	0.61	(1.36)	0.57	(1.33)	0.66	(1.41)	-0.10*
<i>Stress</i>	1.52	(1.89)	1.54	(1.87)	1.49	(1.92)	0.05
<i>Fatigue</i>	2.37	(1.98)	2.41	(1.98)	2.32	(1.99)	0.10*
N activities	10,668		7,186		3,482		
Some College							
<i>Happiness</i>	4.33	(1.54)	4.43	(1.55)	4.22	(1.53)	0.21*
<i>Meaning</i>	4.24	(1.89)	4.50	(1.80)	3.96	(1.94)	0.55*
<i>Sadness</i>	0.50	(1.20)	0.53	(1.24)	0.48	(1.15)	0.05*
<i>Stress</i>	1.54	(1.80)	1.61	(1.82)	1.46	(1.78)	0.15*
<i>Fatigue</i>	2.46	(1.92)	2.62	(1.95)	2.29	(1.87)	0.32*
N activities	13,888		9,359		4,529		
College Degree or more							
<i>Happiness</i>	4.10	(1.47)	4.25	(1.38)	3.95	(1.54)	0.31*
<i>Meaning</i>	4.12	(1.73)	4.33	(1.68)	3.90	(1.76)	0.43*
<i>Sadness</i>	0.53	(1.17)	0.44	(1.05)	0.62	(1.28)	-0.18*
<i>Stress</i>	1.77	(1.77)	1.73	(1.73)	1.80	(1.82)	-0.06*
<i>Fatigue</i>	2.42	(1.80)	2.38	(1.80)	2.46	(1.79)	-0.09*
N activities	19,855		13,197		6,658		

Note: Emotions are measured on a 7-point scale ranging from 0 (not at all) to 6 (very much). N's are unweighted, means are weighted. SD = standard deviation. * Differences between parents (P) and other-adults (O) are statistically significant at least at $p < .05$. Positive values = Parents experience more of that emotion than Other-adults. Negative values = Parents experience less of that emotion than Other-adults.

Table 3.3 Affective Wellbeing during All Time for Full sample

	B (SE) Affective Well-being				
	Happiness	Meaning	Sadness	Stress	Fatigue
	(1)	(2)	(3)	(4)	(5)
<i>Model 1</i>					
Parents (ref. = Other-adults)	0.18*** (0.03)	0.49*** (0.03)	-0.07** (0.02)	0.12*** (0.03)	0.09** (0.03)
Education (ref. = CD & up)					
Less than HD	0.21*** (0.05)	0.39*** (0.06)	0.24*** (0.05)	-0.04 (0.06)	-0.00 (0.06)
HD	0.12*** (0.03)	0.28*** (0.03)	0.08*** (0.02)	-0.12*** (0.03)	-0.03 (0.04)
Some College	0.08*** (0.02)	0.19*** (0.03)	-0.00 (0.02)	-0.10*** (0.03)	0.05 (0.03)
Female (ref. = Male)	0.08*** (0.02)	0.13*** (0.03)	0.03+ (0.02)	0.19*** (0.02)	0.35*** (0.03)
Constant	4.30***	3.26***	0.34***	1.20***	2.55***
rho	0.467	0.412	0.565	0.520	0.524
<i>Model 2</i>					
Parents (ref. = Other-adults)	0.20*** (0.03)	0.52*** (0.04)	-0.08** (0.03)	0.16*** (0.04)	0.12** (0.04)
Education (ref.= CD & up)					
Less than HD	0.12 (0.09)	0.45*** (0.10)	0.41*** (0.10)	0.18+ (0.11)	0.25* (0.10)
HD	0.15** (0.05)	0.36*** (0.06)	0.11* (0.05)	-0.04 (0.06)	0.02 (0.06)
Some College	0.12** (0.04)	0.19*** (0.05)	-0.08* (0.04)	-0.12* (0.05)	0.04 (0.05)
Female (ref. = Male)	0.08*** (0.02)	0.13*** (0.03)	0.03+ (0.02)	0.19*** (0.02)	0.35*** (0.03)
Parental status x Education level					
Parents x Less than HD	0.11 (0.10)	-0.09 (0.12)	-0.22* (0.11)	-0.31** (0.12)	-0.34** (0.12)
Parents x HD	-0.04 (0.06)	-0.12+ (0.07)	-0.05 (0.05)	-0.13+ (0.07)	-0.07 (0.07)
Parents x Some College	-0.06 (0.05)	-0.01 (0.06)	0.11** (0.04)	0.03 (0.06)	0.01 (0.06)

Cont. Table 3.3 Affective Wellbeing during All Time for Full sample

Constant	4.29***	3.25***	0.35***	1.20***	2.55***
rho	0.467	0.412	0.565	0.520	0.524
N activities	47,577	47,463	47,624	47,634	47,621
N respondents	16,016	15,998	16,021	16,022	16,022

Note: Results from random effect models. Standard errors in parentheses. Controls for individual, household, survey level factors not shown (full results available upon request). Significant at: *** $p < 0.001$. ** $p < 0.01$, * $p < 0.05$. Ref. = reference group; HD = high school degree; CD = college degree.

Table 3.4 Affective Wellbeing during All time for Women

	B (SE) Affective Well-being				
	Happiness	Meaning	Sadness	Stress	Fatigue
<i>Model 1</i>	(1)	(2)	(3)	(4)	(5)
Parents (ref. = Other-adults)	0.15*** (0.03)	0.48*** (0.04)	-0.07* (0.03)	0.13** (0.04)	0.10* (0.04)
Education (ref. = CD & up)					
Less than HD	0.24*** (0.06)	0.43*** (0.07)	0.26*** (0.06)	0.02 (0.08)	-0.07 (0.08)
HD	0.18*** (0.04)	0.28*** (0.05)	0.12** (0.04)	-0.03 (0.05)	0.00 (0.05)
Some College	0.07* (0.03)	0.22*** (0.04)	0.04 (0.03)	-0.02 (0.04)	0.05 (0.04)
Constant	4.37***	3.36***	0.49***	1.37***	3.10***
rho	0.451	0.403	0.573	0.514	0.528
<i>Model 2</i>					
Parents (ref. = Other-adults)	0.18*** (0.04)	0.53*** (0.06)	-0.08* (0.04)	0.19*** (0.05)	0.18** (0.06)
Education (ref.= CD & up)					
Less than HD	0.39* (0.15)	0.67*** (0.17)	0.36* (0.16)	0.18 (0.19)	0.14 (0.18)
HD	0.23** (0.08)	0.39*** (0.10)	0.18* (0.08)	0.11 (0.09)	0.13 (0.10)
Some College	0.08 (0.06)	0.24** (0.08)	-0.05 (0.06)	-0.01 (0.08)	0.12 (0.08)
Parental status x Education level					
Parents x Less than HD	-0.18 (0.16)	-0.29+ (0.18)	-0.11 (0.17)	-0.20 (0.20)	-0.26 (0.19)
Parents x HD	-0.07 (0.09)	-0.14 (0.11)	-0.09 (0.09)	-0.19+ (0.11)	-0.18 (0.11)
Parents x Some College	-0.02 (0.07)	-0.03 (0.09)	0.12* (0.06)	-0.02 (0.09)	-0.10 (0.09)
Constant	4.36***	3.35***	0.51***	1.36***	3.08***
rho	0.451	0.403	0.573	0.514	0.528
N activities	26,515	26,436	26,541	26,546	26,538
N respondents	8,927	8,913	8,928	8,929	8,929

Note: Results from random effect models. Standard errors in parentheses. Controls for individual, household, survey level factors not shown (full results available upon request). Significant at: *** p<0.001. **p<0.01, * p<0.05. Ref. = reference group; HD = high school degree; CD = college degree.

Table 3.5 Affective Wellbeing during All time for Men

	B (SE) Affective Well-being				
	Happiness	Meaning	Sadness	Stress	Fatigue
<i>Model 1</i>	(1)	(2)	(3)	(4)	(5)
Parents (ref. = Other-adults)	0.21*** (0.04)	0.47*** (0.05)	-0.09** (0.03)	0.09+ (0.05)	0.04 (0.05)
Education (ref. = CD & up)					
Less than HD	0.15* (0.07)	0.32*** (0.08)	0.22*** (0.07)	-0.10 (0.08)	0.08 (0.09)
HD	0.04 (0.04)	0.26*** (0.05)	0.05 (0.03)	-0.22*** (0.05)	-0.06 (0.05)
Some College	0.11** (0.04)	0.15** (0.04)	-0.06* (0.03)	-0.20*** (0.04)	0.05 (0.05)
Constant	4.31***	3.28***	0.19	1.25***	2.30***
rho	0.485	0.422	0.550	0.529	0.517
<i>Model 2</i>					
Parents (ref. = Other-adults)	0.23*** (0.05)	0.50*** (0.06)	-0.08+ (0.04)	0.14* (0.06)	0.04 (0.07)
Education (ref. = CD & up)					
Less than HD	-0.02 (0.12)	0.33* (0.13)	0.41*** (0.12)	0.14 (0.13)	0.27* (0.13)
HD	0.08 (0.07)	0.32*** (0.08)	0.07 (0.06)	-0.15* (0.07)	-0.05 (0.08)
Some College	0.15* (0.06)	0.15* (0.07)	-0.10* (0.04)	-0.22*** (0.06)	-0.02 (0.07)
Parental status x Education level					
Parents x Less than HD	0.28* (0.14)	-0.02 (0.16)	-0.30* (0.14)	-0.40** (0.15)	-0.31* (0.16)
Parents x HD	-0.06 (0.08)	-0.11 (0.09)	-0.03 (0.07)	-0.13 (0.09)	-0.01 (0.10)
Parents x Some College	-0.07 (0.07)	-0.01 (0.09)	0.07 (0.05)	0.03 (0.08)	0.13 (0.09)
Constant	4.29***	3.26***	0.19	1.24***	2.32***
rho	0.485	0.422	0.549	0.528	0.516
N activities	21,062	21,027	21,083	21,088	21,083
N respondents	7,089	7,085	7,093	7,093	7,093

Note: Results from random effect models. Standard errors in parentheses. Controls for individual, household, survey level factors not shown (full results available upon request). Significant at: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$. Ref. = reference group; HD = high school degree; CD = college degree.

Table 3.6 Affective Wellbeing during All Time for Partnered Mothers

<i>Model 1</i>	B (SE) Affective Well-being				
	Happiness	Meaning	Sadness	Stress	Fatigue
Parents (ref. = Other-adults)	0.19*** (0.05)	0.47*** (0.06)	-0.09* (0.04)	0.03 (0.06)	0.08 (0.06)
Education (ref.=CD & up)					
Less than HD	0.23** (0.08)	0.53*** (0.09)	0.21** (0.07)	0.02 (0.10)	-0.11 (0.11)
HD	0.16** (0.05)	0.29*** (0.06)	0.11** (0.04)	-0.08 (0.06)	0.04 (0.07)
Some College	0.09* (0.04)	0.21*** (0.05)	0.03 (0.03)	-0.06 (0.05)	0.01 (0.05)
Constant	4.61***	3.75***	0.54***	1.58***	3.19***
rho	0.438	0.380	0.521	0.478	0.522
<i>Model 2</i>					
Parents (ref. = Other-adults)	0.20** (0.06)	0.47*** (0.09)	-0.06 (0.05)	0.14+ (0.08)	0.19* (0.09)
Education (ref.=CD & up)					
Less than HD	0.27 (0.25)	0.45 (0.31)	0.26 (0.22)	0.29 (0.30)	0.12 (0.28)
HD	0.26* (0.12)	0.45** (0.15)	0.30* (0.12)	0.14 (0.15)	0.34* (0.16)
Some College	0.03 (0.11)	0.10 (0.14)	-0.04 (0.08)	0.06 (0.13)	0.09 (0.14)
Parental status x Education level					
Parent x Less than HD	-0.04 (0.25)	0.09 (0.31)	-0.06 (0.23)	-0.31 (0.31)	-0.27 (0.30)
Parent x HD	-0.12 (0.13)	-0.19 (0.16)	-0.23+ (0.13)	-0.27+ (0.16)	-0.36* (0.18)
Parent x Some College	0.07 (0.11)	0.12 (0.15)	0.08 (0.09)	-0.14 (0.13)	-0.09 (0.15)
Constant	4.62***	3.77***	0.54***	1.52***	3.14***
rho	0.438	0.380	0.520	0.478	0.522
N activities	16,411	16,367	16,425	16,428	16,421
N respondents	5,513	5,504	5,514	5,514	5,514

Note: Results from random effect models. Standard errors in parentheses. Controls for

individual, household, survey level factors not shown (full results available upon

request). Significant at: *** $p < 0.001$. ** $p < 0.01$, * $p < 0.05$. Ref. = reference group; HD =

high school degree; CD = college degree.

Table 3.7 Affective Wellbeing during All Time for Nonresidential Fathers

<i>Model 1</i>	B (SE) Affective Well-being				
	Happiness	Meaning	Sadness	Stress	Fatigue
Parents (ref. = Other-adults)	0.00 (0.10)	0.18 (0.11)	0.11 (0.09)	0.27* (0.12)	0.06 (0.11)
Education (ref.=CD & up)					
Less than HD	0.06 (0.11)	0.31* (0.13)	0.31** (0.12)	0.06 (0.12)	0.18 (0.13)
HD	0.11+ (0.07)	0.31*** (0.08)	0.00 (0.06)	-0.21** (0.07)	-0.12 (0.08)
Some College	0.14* (0.06)	0.16* (0.07)	-0.12** (0.05)	-0.23*** (0.06)	-0.03 (0.07)
Constant	4.27***	3.27***	0.24	1.52***	2.44***
rho	0.509	0.435	0.575	0.552	0.518
<i>Model 2</i>					
Parents (ref. = Other-adults)	0.15 (0.16)	-0.08 (0.21)	0.23 (0.17)	0.28 (0.22)	0.34+ (0.21)
Education (ref.=CD & up)					
Less than HD	0.01 (0.12)	0.29* (0.14)	0.33** (0.12)	0.08 (0.13)	0.23+ (0.13)
HD	0.12+ (0.07)	0.28*** (0.08)	0.02 (0.06)	-0.20** (0.07)	-0.07 (0.08)
Some College	0.17** (0.06)	0.14* (0.07)	-0.12** (0.05)	-0.24*** (0.06)	-0.03 (0.07)
Parental status x Education level					
Parent x Less than HD	0.30 (0.33)	0.30 (0.47)	-0.26 (0.35)	-0.11 (0.40)	-0.62 (0.43)
Parent x HD	-0.13 (0.22)	0.41 (0.27)	-0.26 (0.22)	-0.11 (0.29)	-0.62* (0.26)
Parent x Some College	-0.49+ (0.26)	0.31 (0.29)	0.00 (0.23)	0.15 (0.32)	0.05 (0.33)
Constant	4.24***	3.28***	0.24	1.52***	2.44***
rho	0.509	0.435	0.575	0.552	0.518
N activities	9,146	9,135	9,160	9,157	9,156
N respondents	3,079	3,078	3,082	3,082	3,082

Note: Results from random effect models. Standard errors in parentheses. Controls for

individual, household, survey level factors not shown (full results available upon

request). Significant at: *** $p < 0.001$. ** $p < 0.01$, * $p < 0.05$. Ref. = reference group; HD =

high school degree; CD = college degree.

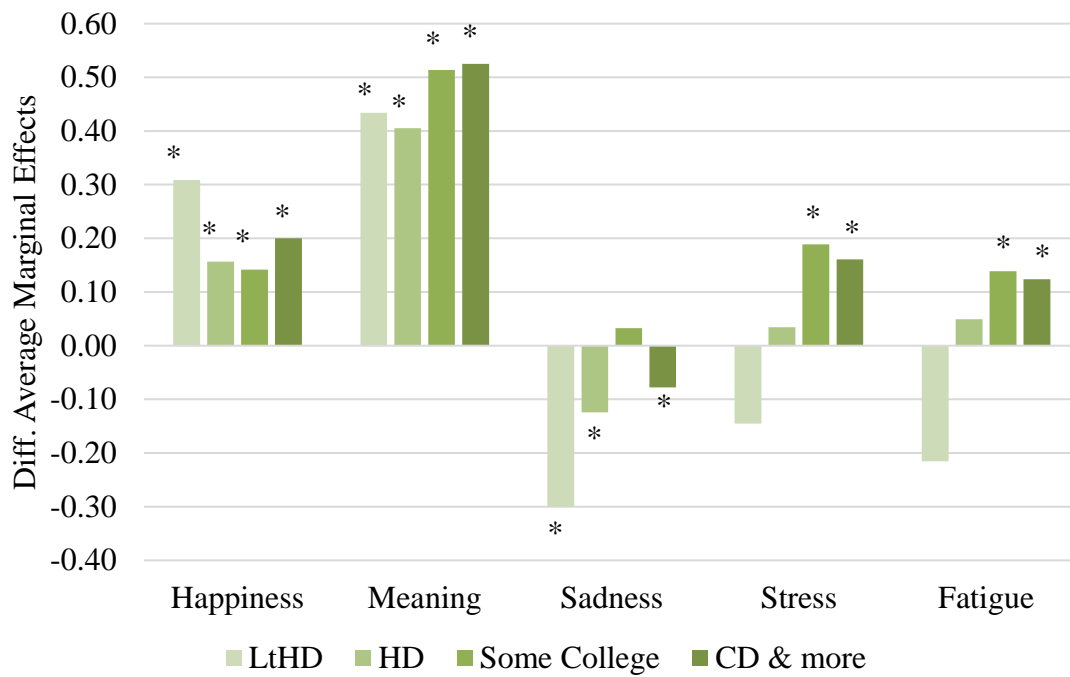


Figure 3.1 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education– Full sample

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between parents and other-adults. A positive value indicates that parents report higher levels of that affect, than other-adults did (the reverse for a negative value). LtHD = less than a high school degree; HD = high school degree; CD = college degree. * The difference between parents and other-adults is statistically significant at least at $p < .05$. All time includes all activities reported in the ATUS, including childcare.

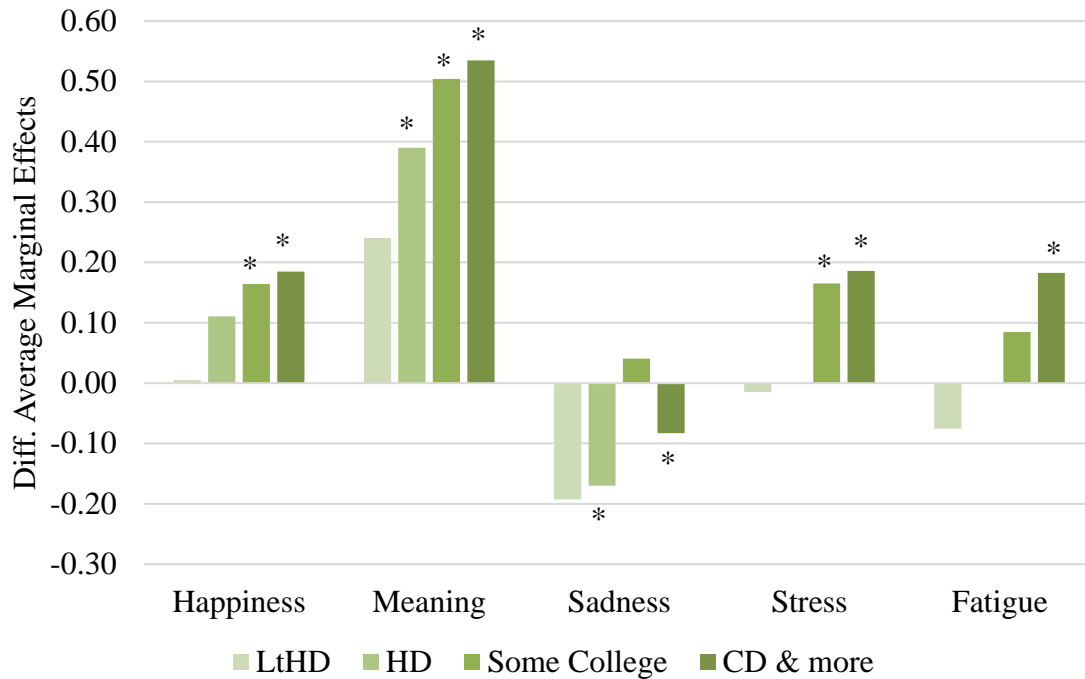


Figure 3.2 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education – Women

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between mothers and women not raising children. A positive value indicates that mothers report higher levels of that affect, than their peers not raising children did (the reverse for a negative value). LtHD = less than a high school degree; HD = high school degree; CD = college degree. * The difference between parents and other-adults is statistically significant at least at $p < .05$. All time includes all activities reported in the ATUS, including childcare.

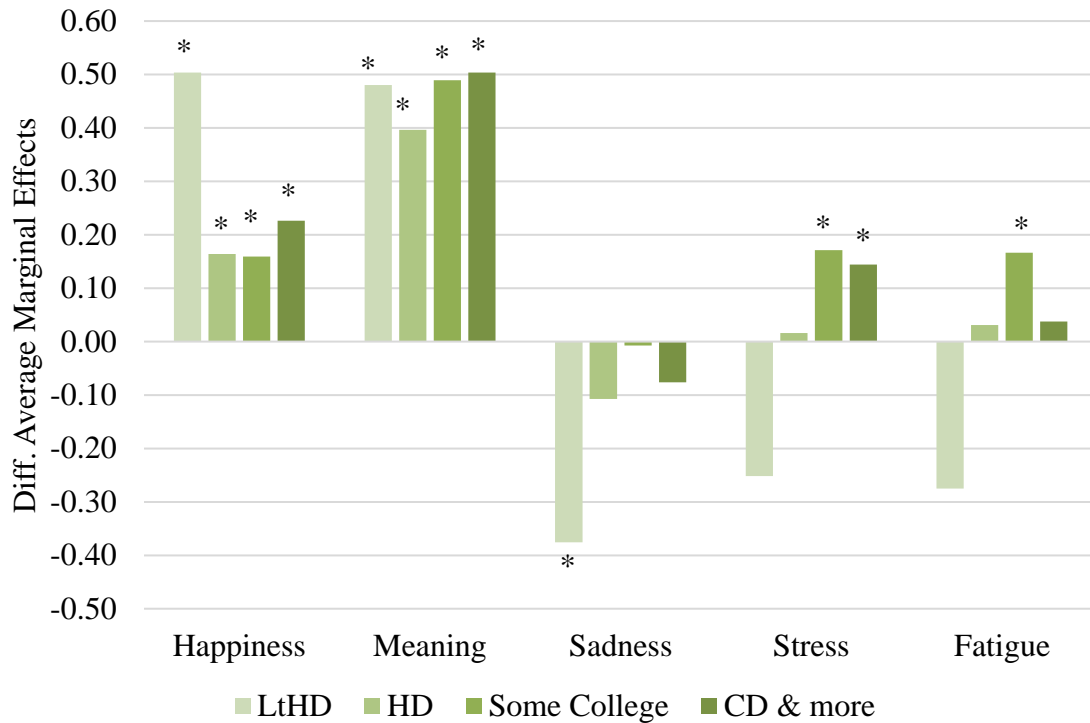


Figure 3.3 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education – Men

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between fathers and men not raising children. A positive value indicates that fathers report higher levels of that affect, than their peers not raising children did (the reverse for a negative value). LtHD = less than a high school degree; HD = high school degree; CD = college degree. * The difference between parents and other-adults is statistically significant at least at $p < .05$. All time includes all activities reported in the ATUS, including childcare.

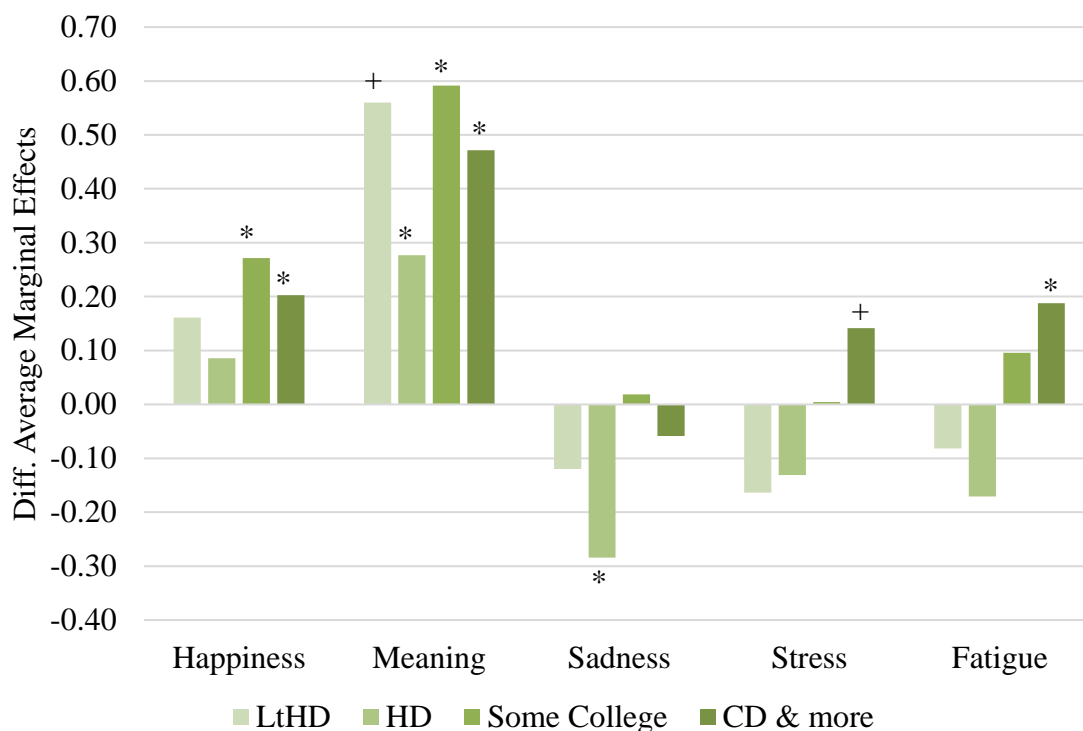


Figure 3.4 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education – Partnered Mothers

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between partnered mothers and partnered women not raising children. A positive value indicates that partnered mothers report higher levels of that affect, than their peers not raising children did (the reverse for a negative value). LtHD = less than a high school degree; HD = high school degree; CD = college degree. * The difference between parents and other-adults is statistically significant at least at $p < .05$. All time includes all activities reported in the ATUS, including childcare.

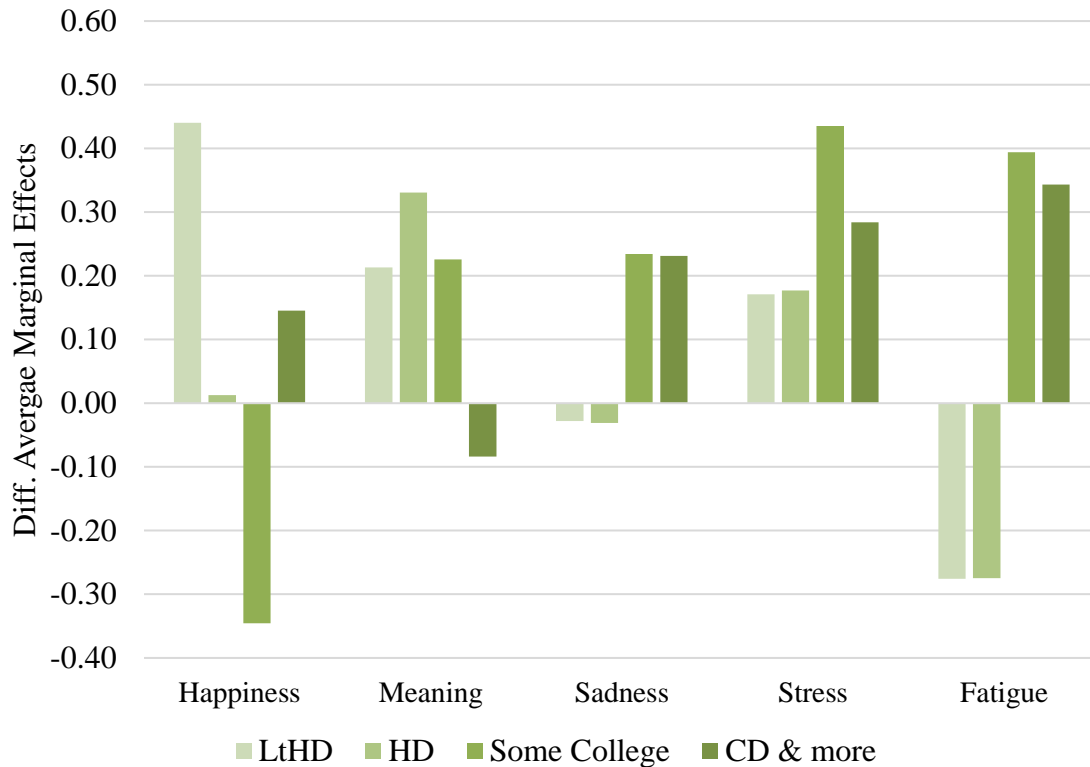


Figure 3.5 Affective Wellbeing Gap (Parents – Other-adults) during All time by Education – Nonresidential Fathers

Note: Results from random effect models including all controls. Columns represent the difference in wellbeing between nonresidential fathers and men not raising children. A positive value indicates that nonresidential fathers report higher levels of that affect, than their peers not raising children did (the reverse for a negative value). LtHD = less than a high school degree; HD = high school degree; CD = college degree. * The difference between parents and other-adults is statistically significant at least at $p < .05$. All time includes all activities reported in the ATUS, including childcare.

CHAPTER 4

CONCLUSION

The present dissertation project aimed to further our understanding of how parenthood is experienced by contemporary Americans in their daily lives and what are some of the returns associated with the parenting role for adults' emotional wellbeing. In the first study, I took a new methodological approach to the study of the parenting wellbeing gap (i.e., the idea that parents are better or worse off than non-parents) by using positive and negative measures of *experienced* emotional wellbeing from the American Time Use Survey (2010, 2012, 2013) a nationally representative source of time use information on a contemporary sample of Americans. Measures of experienced emotional wellbeing, as opposed to evaluative wellbeing, have been shown to provide accurate estimates of how people feel in their daily lives (Kahneman and Krueger 2006; Kapteyn et al. 2015; Krueger and Schkade 2008; Krueger et al. 2009; National Research Council 2012). An additional advantage to this data, beyond reliability, and the availability of multiple dimensions of positive and negative assessments of emotional wellbeing, was that respondents were asked to assess how they felt in relation to specific activities, thus enabling me to examine if returns to parental wellbeing varied across some of the most common daily activities: market work, nonmarket work and leisure. Because previous work has recently documented that parents were happiest in the presence of their children (Kimmel and Connelly 2015; Musick et al. 2016), I also

explored if children's presence moderates the relation between parental status and emotional wellbeing. Because the vast majority of previous literature has focused primarily on women's parental wellbeing, and we knew little about how parenthood impacts men's wellbeing, the first study has also explored if observed patterns were driven primarily by women (who continue to take on most of childcare duties, and for whom the parenthood role may represent a more central component of their identity; Bianchi et al. 2006; Hays 1998; Townsend 2010) or if they could be generalized to men as well. Thus, the first dissertation study helped broadened our theoretical understanding of the parental wellbeing gap by exploring variations in emotional wellbeing for different sociodemographic groups (i.e., different genders) and across contexts (i.e., multiple types of activities, and for times when parents were/weren't in the presence of their children).

Following an extensive analysis and multiple robustness tests, the results from the first study revealed that, indeed, a parental wellbeing gap exists, but it is not universally defining all aspects of parents and nonparents lives. Specifically, parenthood - compared to not raising children - was associated with both more happiness and meaning, but also more stress and fatigue primarily during time spent in nonmarket work type of activities (i.e., housework and leisure). Said differently, parenthood made no difference for experienced emotional wellbeing during time spent in paid work. Consistent with previous work, these results also showed that parenthood is associated with more positive affect only when parents were in the presence of their children (Musick et al. 2016). However, somewhat surprising, I also found that, for leisure time, parenthood is associated with more stress and fatigue regardless of whether parents were in the presence of their children or not. Contrary to my expectations, these patterns were

generally the same for men as women. Taken together the findings from the first study brought support for the idea that the returns to parenthood are a “mixed bag” while also documenting the contexts in which a parenting wellbeing gap does not exist.

The second study of this dissertation addressed a related set of questions. If parenthood is associated with both costs and benefits to adult’s emotional wellbeing, and socio-economic status (SES) shapes the experience, meaning and effects of parenting (and not parenting) then, how is parenthood experienced by individuals from different SES groups? In the theory section of the second study, I discussed findings by previous work and formulated competing hypotheses for why parenthood may be associated with more positive/negative affect for low vs. high SES individuals. Using the same data and a similar analytical approach as the first study, the results from the second study showed that, at the population level, parenthood was associated with more happiness and more meaning for all parents, regardless of education level. However, for negative affect, parenthood was associated with more stress and more fatigue only for higher educated adults. For lower educated adults, parenthood did not seem to affect experiences of negative emotions. Finally, when the role of gender was accounted for, I found that for high SES individuals, parenthood was associated with greater levels of positive and negative emotions for both men and women, while at the low SES level, parenthood made no difference for negative emotions and increased positive emotions only for men. Taken together these findings suggest that the costs and rewards of parenthood are not equally distributed across the SES spectrum. These findings help further our understanding of fertility behaviors by different SES individuals and bring new insights

into the parenthood wellbeing literature by identifying for which sociodemographic groups parenthood is more likely to be strenuous and or/beneficial.

Fruitful avenues for future research include: a) follow up sequence analysis - using wellbeing information on all activities reported in a day – aiming to identify why parents report more negative affect than other-adults, even during time when their children are not present; b) additional inquiry into how parenting affects wellbeing for low SES individuals, using a larger sample which will identify an effect if one exists.

In sum, this dissertation provides some of the first empirical evidence of the positive and negative links between one of the most important roles that people play - parenting - and their emotional wellbeing as they experience parenthood in their daily lives. The findings presented in this dissertation can not only inform scientific theory, but also policymakers and the general public - who have also been captivated by what having (or not having) children means for peoples' wellbeing.

REFERENCES

- Aassve, Arnstein, Alice Goisis, and Maria Sironi. 2012. "Happiness and Childbearing Across Europe." *Social Indicators Research* 108(1):65-86.
<https://doi.org/10.1007/s11205-011-9866-x>
- Abraham, Katharine G., Aaron Maitland, and Suzanne M. Bianchi. 2006. "Non-response in the American Time Use Survey: Who Is Missing from the Data and How Much Does It Matter?" *Public Opinion Quarterly* 70(5):676-703.
<https://doi.org/10.1093/poq/nfl037>
- Aguiar, Mark, and Erik Hurst. 2007. "Measuring Trends in Leisure: The Allocation of Time Over Five Decades." *The Quarterly Journal of Economics* 122(3):969-1006.
<https://doi.org/10.1162/qjec.122.3.969>
- Alesina, Alberto, Rafael Di Tella, and Robert MacCulloch. 2004. "Inequality and Happiness: Are Europeans and Americans Different?" *Journal of Public Economics* 88(9):2009-2042. <https://doi.org/10.1016/j.jpubeco.2003.07.006>
- Allison, Paul D. 2009. *Fixed Effects Regression Models*. Newbury Park, CA: Sage.
- Allison, Paul. D. 2002. Missing Data: Quantitative Applications in the Social Sciences. *British Journal of Mathematical and Statistical Psychology* 55(1):193-196. <https://doi.org/10.1348/000711002159653>

- Altintas, Evrim. 2016. "The Widening Education Gap in Developmental Child Care Activities in the United States, 1965–2013." *Journal of Marriage and Family* 78(1):26-42. <https://doi.org/10.1111/jomf.12254>
- Andrews, Frank M. and Stephen B. Withey. [1976] 2012. *Social Indicators of Well Being: Americans' Perception of Life Quality*. New York, NY: Plenum Press.
- Angeles, Luis. 2010. "Children and Life Satisfaction." *Journal of Happiness Studies* 11(4):523-538. <https://doi.org/10.1007/s10902-009-9168-z>
- ATUS. 2014. "American Time Use Survey (ATUS) Data Dictionary: 2010, 2012, and 2013 Well-being Module Data Variables Collected in the ATUS Well-being Module." Retrieved on August 1, 2016 (<https://www.bls.gov/tus/wbmintcodebk.pdf>)
- Augustine, Jennifer M., Timothy Nelson, and Kathryn Edin. 2009. "Why Do Poor Men Have Children? Fertility Intentions among Low-Income Unmarried U.S. Fathers." *The ANNALS of the American Academy of Political and Social Science* 624(1):99-117. <https://doi.org/10.1177/0002716209334694>
- Augustine, Jennifer. M. 2014. "Mothers' Employment, Education, and Parenting." *Work and Occupation* 41(2):237-270. <https://doi.org/10.1177/0730888413501342>
- Barnett, Rosalind C., and Janet S. Hyde. 2001. "Women, Men, Work, And Family: An Expansionist Theory." *American Psychologist* 56(10):781-796. <http://dx.doi.org/10.1037/0003-066X.56.10.781>
- Barnett, Rosalind C., Nancy L. Marshall, and Joseph H. Pleck. 1992. "Men's Multiple Roles and Their Relationship to Men's Psychological Distress." *Journal of Marriage and the Family* 54(2):358-367. <https://doi.org/10.2307/353067>

- Baumeister, Roy. F., Ellen Bratslavsky, Catrin Finkenauer, and Kathleen D. Vohs. 2001. "Bad Is Stronger Than Good." *Review of General Psychology* 5(4):323-370.
<https://doi.org/10.1037//1089-2680.5.4.323>
- Becker, Gary. 1981. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.
- Belsky, Jay, and Michael Rovine. 1990. "Patterns of Marital Change Across the Transition to Parenthood: Pregnancy to Three Years Postpartum." *Journal of Marriage and the Family* 52(1):5-19. <https://doi.org/10.2307/352833>
- Bengtson, Vern L. 2001. "Beyond the Nuclear Family: The Increasing Importance of Multigenerational Bonds." *Journal of Marriage and Family* 63(1):1-16.
<https://doi.org/10.1111/j.1741-3737.2001.00001.x>
- Bertrand, Marianne. 2013. "Career, Family, and the Well-being of College-educated Women." *American Economic Review* 103(3):244-50.
<http://dx.doi.org/10.1257/aer.103.3.244>
- Bianchi, Suzanne M. 2000. "Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?" *Demography* 37(4):401-414.
<https://doi.org/10.1353/dem.2000.0001>
- Bianchi, Suzanne M., John P. Robinson, and Melissa A. Milkie. 2006. *The changing rhythms of American family life*. New York, NY: Russell Sage Foundation.
- Bianchi, Suzanne, Philip N. Cohen, Sara Raley, and Kei Nomaguchi. 2004. *Inequality in Parental Investment in Child-Rearing: Expenditures, Time, and Health*. In Kathryn M. Neckerman (Ed.), *Social Inequality* (pp. 189 – 219). New York: Russell Sage Foundation.

- Bird, Chloe E. 1997. "Gender Differences in the Social and Economic Burdens of Parenting and Psychological Distress." *Journal of Marriage and the Family* 59(4):809-823. <https://doi.org/10.2307/353784>
- Bittman, Michael, and Judy Wajcman. 2000. "The Rush Hour: The Character of Leisure Time and Gender Equity." *Social Forces* 79(1):165-189.
<https://doi.org/10.1093/sf/79.1.165>
- Blair-Loy, Mary. 2009. *Competing Devotions: Career and Family among Women Executives*. Cambridge, MA: Harvard University Press.
- Bornstein, Marc H., and Robert H. Bradley. (Eds.). [2003] 2014. *Socioeconomic Status, Parenting, and Child Development*. New York, NY: Routledge.
- Bureau of Labor Statistics and U.S. Census Bureau. 2017. "American Time Use Survey User's Guide." Retrieved July 3, 2017 (<http://www.bls.gov/tus/atususersguide.pdf>).
- Burgard, Sarah A., and Jennifer A. Ailshire. 2013. "Gender and Time for Sleep among U.S. Adults." *American Sociological Review* 78(1):51-69.
<https://doi.org/10.1177/0003122412472048>
- Campos, Belinda, Shu-wen Wang, Tatyana Plaksina, Rena L. Repetti, Dominik Schoebi, Elinor Ochs, and Margaret E. Beck. 2013. "Positive and Negative Emotion in the Daily Life of Dual-Earner Couples with Children." *Journal of Family Psychology* 27(1):76-85. <http://dx.doi.org/10.1037/a0031413>
- Cherlin, Andrew J. 2010. "Demographic Trends in the United States: A Review of Research in the 2000s." *Journal of Marriage and Family* 72(3):403-419.
<https://doi.org/10.1111/j.1741-3737.2010.00710.x>

- Chida, Yoichi, and Andrew Steptoe. 2008. "Positive Psychological Well-Being and Mortality: A Quantitative Review of Prospective Observational Studies." *Psychosomatic Medicine* 70(7):741-756.
<https://doi.org/10.1097/PSY.0b013e31818105ba>
- Cialdini, Robert B. 1987. *Influence* Vol. 3. A. Michel.
- Cohen, Sheldon, and Sarah D. Pressman. 2006. "Positive Affect and Health." *Current Directions in Psychological Science* 15(3):122-125.
<https://doi.org/10.1111/j.0963-7214.2006.00420.x>
- Cohen, Sheldon, William J. Doyle, Ronald B. Turner, Cuneyt M. Alper and David P. Skoner. 2003. "Emotional Style and Susceptibility to the Common Cold." *Psychosomatic Medicine* 65(4):652-57.
<https://doi.org/10.1097/01.PSY.0000077508.57784.DA>
- Collins, Andrew W., Stephanie D. Madsen, and Amy Susman-Stillman. 2002. "Parenting during Middle Childhood." Pp. 73-101 in *Handbook of Parenting*. 2nd ed., Vol. 1, edited by Marc H. Bornstein. Mahwah, NJ: Erlbaum.
- Connelly, Rachel, and Jean Kimmel. 2015. "If You're Happy and You Know It: How Do Mothers and Fathers in The US Really Feel About Caring for Their Children?" *Feminist Economics* 21(1):1-34. <https://doi.org/10.1080/13545701.2014.970210>
- Cooper, Carey E., Sara S. McLanahan, Sarah O. Meadows, and Jeanne Brooks-Gunn. 2009. "Family Structure Transitions and Maternal Parenting Stress." *Journal of Marriage and Family* 71(3):558-574. <https://doi.org/10.1111/j.1741-3737.2009.00619.x>

- Correll, Shelley J., Stephen Benard, and In Paik. 2007. "Getting a Job: Is There a Motherhood Penalty?" *American Journal of Sociology* 112(5):1297–1339.
<https://doi.org/10.1086/511799>
- Cowan, Carolyn Pape, and Philip A. Cowan. 2000. *When Partners Become Parents: The Big Life Change for Couples*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Crnic, Keith, and Christine Low. 2002. "Everyday Stresses and Parenting." Pp. 243-269 in *Handbook of Parenting*. Vol.1, *5 Practical Issues in Parenting*, edited by Marc H. Bornstein. London: Lawrence Erlbaum Associates, Publishers.
- Crouter, Ann, C and Alan Booth. 2004. *Work-family Challenges for Low-income Parents and their Children*. Mahwah, NJ: Erlbaum.
- Csikszentmihalyi, Mihaly, and Reed Larson. [1987] 2014. "Validity and Reliability of the Experience-Sampling Method." Pp. 35-54 in *Flow and the Foundations of Positive Psychology*. Springer Netherlands. https://doi.org/10.1007/978-94-017-9088-8_3
- Csikszentmihalyi, Mihaly. 1990. *Flow*. New York, NY: Harper & Row.
- Damaske, Sarah, Joshua M. Smyth, and Matthew J. Zawadzki. 2014. "Has Work Replaced Home as A Haven? Re-examining Arlie Hochschild's Time Bind Proposition with Objective Stress Data." *Social Science and Medicine* 115:130-138.
<https://doi.org/10.1016/j.socscimed.2014.04.047>
- Daugherty, Jill., and Martinez, Gladys. 2016. "Birth Expectations of US Women Aged 15-44." *NCHS data brief*, 260:1-8.

- Deaton, Angus, and Arthur A. Stone. 2014. "Evaluative and Hedonic Wellbeing Among Those With and Without Children at Home." *Proceedings of the National Academy of Sciences* 111(4), 1328-1333. <https://doi.org/10.1073/pnas.1311600111>
- Deaton, Angus. 2007. *Income, Aging, Health and Wellbeing Around the World: Evidence from the Gallup World Poll*. Working paper No. 13317. National Bureau of Economic Research. Doi: 10.3386/w13317 retrieved from <http://www.nber.org/papers/w13317>
- Dell'Antonia, KJ. 2016. "For U.S. Parents, a Troubling Happiness Gap." Well Blogs New York Times. Retrieved June 14, 2017 (<https://well.blogs.nytimes.com/2016/06/17/for-u-s-parents-a-troubling-happiness-gap/>).
- Delle Fave, Antonella, and Faust Massimini. 2004. "Parenthood and the Quality of Experience in Daily Life: A Longitudinal Study." *Social Indicators Research* 67(1-2):75-106. <https://doi.org/10.1023/B:SOCI.0000007335.26602.59>
- DeVoe, Sanford E., and Jeffrey Pfeffer. 2011. "Time is Tight: How Higher Economic Value of Time Increases Feelings of Time Pressure." *Journal of Applied Psychology* 96(4):665-676. <https://doi.org/10.1037/a0022148>
- Dewa, Carolyn S., Nancy Chau, and Stanley Dermer. 2010. "Examining the Comparative Incidence and Costs of Physical and Mental Health-Related Disabilities in an Employed Population." *Journal of Occupational and Environmental Medicine* 52(7):758-762. Doi: 10.1097/JOM.0b013e3181e8cfb5

- Di Tella, Rafael, Robert J. MacCulloch, and Andrew J. Oswald. 2003. "The Macroeconomics of Happiness." *The Review of Economics and Statistics* 85(4):809-827. <https://doi.org/10.1162/003465303772815745>
- Diener, Ed, and Martin EP Seligman. 2002. "Very Happy People." *Psychological Science* 13(1):81-84. <https://doi.org/10.1111/1467-9280.00415>
- Diener, Ed, Daniel Kahneman, and John Helliwell. 2010. *International Differences in Well-Being*. New York, NY: Oxford University Press.
- Dolan, Paul, Tessa Peasgood, and Mathew White. 2008. "Do We Really Know What Makes Us Happy? A Review of the Economic Literature on the Factors Associated with Subjective Well-being." *Journal of Economic Psychology* 29(1):94-122 Doi: 10.1016/j.joep.2007.09.001
- Eccles, Jacquelynne S. 1999. "The Development of Children Ages 6 to 14." *The Future of Children* 92:30-44. <https://doi.org/10.2307/1602703>
- Edin, Kathryn, and Maria Kefalas. [2005] 2011. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Berkeley and Los Angeles, CA: University of California Press.
- Edin, Kathryn, and Timothy J. Nelson. 2013. *Doing the Best I Can: Fatherhood in the Inner City*. Berkeley, CA: University of California Press.
- Elek, Susan M., Diane Brage Hudson, and Margaret Ofe Fleck. 2002. "Couples' Experiences with Fatigue During the Transition to Parenthood." *Journal of Family Nursing* 8(3):221-240. <https://doi.org/10.1177/107484070200800305>
- Emmons, Robert A., and Laura A. King. 1988. "Conflict Among Personal Strivings: Immediate and Long-Term Implications for Psychological and Physical Well-

Being.” *Journal of Personality and Social Psychology* 54(6):1040-1048. Doi:
10.1037//0022-3514.54.6.1040

Esarey, Justin, and Jane Lawrence Sumner. 2015. “Marginal Effects in Interaction
Models: Determining and Controlling the False Positive Rate.” *Comparative
Political Studies* 1-33. <https://doi.org/10.1177/0010414017730080>

Evenson, Ranae J., and Robin W. Simon. 2005. “Clarifying the Relationship Between
Parenthood and Depression.” *Journal of Health and Social Behavior* 46(4):341-358.
<https://doi.org/10.1177/002214650504600403>

Eysenck, Hans J., and Michael W. Eysenck. 1994. *Happiness: Facts and Myths*.
Psychology Press.

Fischer, Claude S., and Michael Hout. 2006. *Century of Difference: How America
Changed in the Last One Hundred Years*. New York: Russell Sage Foundation.

Frederick, Shane, Nathan Novemsky, Jing Wang, Ravi Dhar, and Stephen Nowlis. 2009.
“Opportunity Cost Neglect.” *Journal of Consumer Research* 36(4):553-561.

Freeman, Richard B. 1978. "Job Satisfaction as an Economic Variable" *American
Economic Review* 68(2):135-141. <https://doi.org/10.3386/w0225>

Furstenberg Jr, Frank F., Sheela Kennedy, Vonnie C. McLoyd, Ruben G. Rumbaut, and
Richard A. Settersten Jr. 2004. “Growing Up Is Harder to Do.” *Contexts* 3(3):33-41.
<https://doi.org/10.1525/ctx.2004.3.3.33>

Galinsky, Ellen, James T. Bond, and Dana E. Friedman. 1996. “The Role of Employers
in Addressing the Needs of Employed Parents.” *Journal of Social Issues* 52(3):111-
136. <https://doi.org/10.1111/j.1540-4560.1996.tb01582.x>

Galinsky, Ellen. 1987. *The Six Stages of Parenthood*. Addison-Wesley Pub. Co.

- Gay, Caryl L., Kathryn A. Lee, and Shih-Yu Lee. 2004. "Sleep Patterns and Fatigue in New Mothers and Fathers." *Biological Research for Nursing* 5(4):311-318.
<https://doi.org/10.1177/1099800403262142>
- Gerson, Kathleen, and Jerry A. Jacobs. 2004. "The Work-Home Crunch." *Contexts* 3(4):29-37. <https://doi.org/10.1525/ctx.2004.3.4.29>
- Glass, Jennifer, Robin W. Simon, and Matthew A. Andersson. 2016. "Parenthood and Happiness: Effects of Work-Family Reconciliation Policies in 22 OECD Countries." *American Journal of Sociology* 122(3):886-929.
<https://doi.org/10.1086/688892>
- Hamermesh, Daniel S., and Jungmin Lee. 2007. "Stressed Out on Four Continents: Time Crunch or Yuppie Kvetch?" *The Review of Economics and Statistics* 89(2): 374-383. <https://doi.org/10.1162/rest.89.2.374>
- Hansen, Thomas. 2012. "Parenthood and Happiness: A Review of Folk Theories Versus Empirical Evidence." *Social Indicators Research* 108(1):29-64.
<https://doi.org/10.1007/s11205-011-9865-y>
- Harknett, Kristen S., and Caroline S. Hartnett. 2011. "Who Lacks Support and Why? An Examination of Mothers' Personal Safety Nets." *Journal of Marriage and Family* 73(4):861-875. <https://doi.org/10.1111/j.1741-3737.2011.00852.x>
- Hays, Sharon. 1998. *The Cultural Contradictions of Motherhood*. Yale University Press: New Haven and London.
- Headey, Bruce, Jonathan Kelley, and Alex Wearing. 1993. "Dimensions of Mental Health: Life Satisfaction, Positive Affect, Anxiety and Depression." *Social Indicators Research* 29(1):63-82. <https://doi.org/10.1007/BF01136197>

- Helliwell, John F. and Robert D. Putnam. 2005. "The Social Context of Well-Being," chapter 17 in *The Science of Well-Being*. edited by F. A. Huppert, B. Kaverne and N. Baylis. London: Oxford University Press.
- Helliwell, John F., Haifang Huang, Shawn Grover, and Shun Wang. 2014. *Empirical Linkages Between Good Government and National Well-Being*. Working paper No. 20686. National Bureau of Economic Research. <https://doi.org/10.3386/w20686>
- Herbst, Chris M., and John Ifcher. 2016. "The Increasing Happiness of US Parents." *Review of Economics of the Household* 14(3):529-551.
<https://doi.org/10.1007/s11150-015-9302-0>
- Hertz, Rosanna. 2006. *Single by Chance, Mothers by Choice: How Women are Choosing Parenthood Without Marriage and Creating the New American Family*. New York, NY: Oxford University Press.
- Hochschild, Arlie, and Anne Machung. 2012. *The Second Shift: Working Families and the Revolution at Home*. New York, NY: Penguin.
- Hochschild, Arlie. 1997. "The Time Bind." *Journal of Labor and Society* 1(2):21-29.
- Hofferth, Sandra L., Sarah M. Flood, and Matthew Sobek. 2015. American Time Use Survey Data Extract Builder: Version 2.5 [dataset]. College Park, MD: University of Maryland and Minneapolis, MN: University of Minnesota, 2015.
<http://doi.org/10.18128/D060.V2.5>. (<http://www.atusdata.org>).
- Hoffman, Lois Wladis, Arland Thornton, and Jean Denby Manis. 1978. "The Value of Children to Parents in the United States." *Journal of Population* 1(2):91-131.
<https://doi.org/10.1007/BF01277597>

- Huppert, Felicia. A. 2009. "Psychological Well-being: Evidence Regarding its Causes and Consequences." *Applied Psychology: Health and Well-Being* 1(2):137-164.
<http://doi.org/10.1111/j.1758-0854.2009.01008.x>
- Jackson, Aurora P., Jeanne Brooks-Gunn, Chien Huang, and Marc Glassman. 2000. "Single Mothers in Low-Wage Jobs: Financial Strain, Parenting, and Preschoolers' Outcomes." *Child Development* 71(5):1409-1423. <https://doi.org/10.1111/1467-8624.00236>
- Jacobs, Jerry A., and Kathleen Gerson. 2004. *The Time Divide: Work, Family, and Gender Inequality*. Harvard University Press.
- Jones, Rachel K., and April Brayfield. 1997. "Life's Greatest Joy?: European Attitudes toward the Centrality of Children." *Social Forces* 75(4):1239-1269.
<https://doi.org/10.1093/sf/75.4.1239>
- Kahneman, Daniel, Alan B. Krueger, David A. Schkade, Norbert Schwarz, and Arthur A. Stone. 2004. "A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method." *Science* 306(5702):1776-1780.
<http://doi.org/10.1126/science.1103572>
- Kahneman, Daniel, and Alan B. Krueger. 2006. "Developments in the Measurement of Subjective Well-Being." *The Journal of Economic Perspectives* 20(1):3-24.
<http://doi.org/10.1257/089533006776526030>
- Kahneman, Daniel, and Angus Deaton. 2010. "High Income Improves Evaluation of Life but not Emotional Well-being." *Proceedings of the National Academy of Science* 107(38):16489-16493. <https://doi.org/10.1073/pnas.1011492107>

- Kalil, Ariel, Rebecca Ryan, and Michael Corey. 2012. "Diverging Destinies: Maternal Education and The Developmental Gradient in Time with Children." *Demography* 49(4):1361-1383. <https://doi.org/10.1007/s13524-012-0129-5>
- Kammann, Richard, and Ross Flett. 1983. "Affectometer 2: A Scale to Measure Current Level of General Happiness." *Australian Journal of Psychology* 35(2):259-265. <https://doi.org/10.1080/00049538308255070>
- Kapteyn, Arie, Jinkook Lee, Caroline Tassot, Hana Vonkova, and Gema Zamarro. 2015. "Dimensions of Subjective Well-Being." *Social Indicators Research* 123(3):625-660. <https://doi.org/10.1007/s11205-014-0753-0>
- Kendig, Sarah M., and Suzanne M. Bianchi. 2008. "Single, Cohabiting, and Married Mothers' Time with Children." *Journal of Marriage and Family* 70(5):1228-1240. <https://doi.org/10.1111/j.1741-3737.2008.00562.x>
- Kiecolt-Glaser, Janice K., Lynanne McGuire, Theodore F. Robles, and Ronald Glaser. 2002. "Psychoneuroimmunology: Psychological Influences on Immune Function and Health." *Journal of Consulting and Clinical Psychology* 70(3):537-547. <https://doi.org/10.1037//0022-006X.70.3.537>
- Kimmel, Jean, and Rachel Connelly. 2007. "Mothers' Time Choices Caregiving, Leisure, Home Production, and Paid Work." *Journal of Human Resources* 42(3):643-681. <https://doi.org/10.3368/jhr.XLII.3.643>
- Koropecj-Cox, Tanya and Gretchen Pendell. 2007a. "Attitudes About Childlessness in the United States: Correlates of Positive, Neutral, and Negative Responses."

Journal of Family Issues 28(8):1054-1082.

<https://doi.org/10.1177/0192513X07301940>

Koropecj-Cox, Tanya and Gretchen Pendell. 2007b. "The Gender Gap in Attitudes About Childlessness in the United States." *Journal of Marriage and Family* 69(4):899-915. Doi: 10.1111/j.1741-3737.2007.00420.x

Krueger, Alan B., Daniel Kahneman, Claude Fischler, David Schkade, Norbert Schwarz, and Arthur A. Stone. 2009. "Time Use and Subjective Well-Being in France and the US." *Social Indicators Research* 93(1):7-18. <https://doi.org/10.1007/s11205-008-9415-4>

Krueger, Alan. B., and David A. Schkade. 2008. "The Reliability of Subjective Well-Being Measures." *Journal of Public Economics* 92(8-9):1833-1845. <https://doi.org/10.1016/j.jpubeco.2007.12.015>

Kushlev, Kostadin, Elizabeth W. Dunn, and Claire E. Ashton-James. 2012. "Does Affluence Impoverish the Experience of Parenting?" *Journal of Experimental Social Psychology* 48(6):1381-1384. <https://doi.org/10.1016/j.jesp.2012.06.001>

Kushlev, Kostadin. 2011. *Exploring Parental Well-Being: Is Childcare Associated with Parental Well-Being and What Factors Can Enhance It*. Doctoral dissertation, Department of Psychology, University of British Columbia, Vancouver, Canada.

Laird, Nan M., and James H. Ware. 1982. "Random-effects Models for Longitudinal Data." *Biometrics* 38(4):963-974. <https://doi.org/10.2307/2529876>

Lareau, Annette. 2003. *Unequal Childhoods: Race, Class, and Family Life*. Berkeley, CA: University of California Press.

- Lee, Kathryn A., Mary Ellen Zaffke, and Geoffry McEnany. 2000. "Parity and Sleep Patterns During and After Pregnancy." *Obstetrics and Gynecology* 95(1):14-18.
[https://doi.org/10.1016/S0029-7844\(99\)00486-X](https://doi.org/10.1016/S0029-7844(99)00486-X)
- Levy-Shiff, Rachel, Lilly Dimitrovsky, Shmuel Shulman, and Dov Har-Even. 1998. "Cognitive Appraisals, Coping Strategies, and Support Resources as Correlates of Parenting and Infant Development." *Developmental Psychology* 34(6):1417-1427.
- Lino, Mark, Kevin Kuczynski, Nestor Rodriguez, and Tusa R. Schap 2017. *Expenditures on Children by Families, 2015*. Center for Nutrition Policy and Promotion, US Department of Agriculture.
https://www.cnpp.usda.gov/sites/default/files/expenditures_on_children_by_families/crc2015.pdf
- Livingston, Gretchen, and D'Vera Cohn. 2010. "Childlessness Up Among All Women; Down Among Women with Advanced Degrees". Pew Research Center. Social and Demographic Trends Report, Retrieved August 12, 2017
(<http://www.pewsocialtrends.org/2010/06/25/childlessness-up-among-all-women-down-among-women-with-advanced-degrees/>)
- Mammen, Kristin. 2011. "Fathers' Time Investments in Children: Do Sons Get More?" *Journal of Population Economics* 24(3):839-871.
<https://doi.org/10.1007/s00148-009-0272-5>
- Margolis, Rachel, and Mikko Myrskylä. 2011. "A Global Perspective on Happiness and Fertility." *Population and Development Review* 37(1):29-56.
<https://doi.org/10.1111/j.1728-4457.2011.00389.x>

- Markowitz, Fred. E. 1998. "The Effects of Stigma on the Psychological Well-Being and Life Satisfaction of Persons with Mental Illness." *Journal of Health and Social Behavior* 39(4):335-347. Doi: 10.2307/2676342
- Martin, Joyce A., Brady E. Hamilton, and Michelle J.K. Osterman. 2017. "Births in the United States, 2016." NCHS Data Brief No. 287, Retrieved March 1, 2018 (<https://www.cdc.gov/nchs/products/databriefs/db287.htm>)
- Massey, Douglas S. 2007. *Categorically Unequal: The American Stratification System*. New York, NY: Russell Sage Foundation.
- Mattingly, Marybeth J., and Liana C. Sayer. 2006. "Under Pressure: Gender Differences in The Relationship Between Free Time and Feeling Rushed." *Journal of Marriage and Family* 68(1):205-221. <https://doi.org/10.1111/j.1741-3737.2006.00242.x>
- Mattingly, Marybeth J., and Suzanne M. Bianchi. 2003. "Gender Differences in the Quantity and Quality of Free Time: The U.S. Experience." *Social Forces* 81(3):999-1030. <https://doi.org/10.1353/sof.2003.0036>
- Maume, David J., Rachel A. Sebastian, and Anthony R. Bardo. 2009. "Gender Differences in Sleep Disruption among Retail Food Workers." *American Sociological Review* 74(6):989-1007. <https://doi.org/10.1177/000312240907400607>
- McLanahan, Sara, and Julia Adams. 1989. "The Effects of Children on Adults' Psychological Well-Being: 1957–1976." *Social Forces* 68(1):124-146. <https://doi.org/10.1093/sf/68.1.124>
- McLanahan, Sara. 2004. "Diverging Destinies: How Children are Faring Under the Second Demographic Transition." *Demography* 41(4):607-627. <https://doi.org/10.1353/dem.2004.0033>

- McMahon, Martha. 1995. *Engendering Motherhood: Identity and Self-transformation in Women's Lives*. Guilford Press. New York: Guilford Press.
- McQuillan, Julia, Arthur L. Greil, Lynn White, and Mary Casey Jacob. 2003. "Frustrated Fertility: Infertility and Psychological Distress Among Women." *Journal of Marriage and Family* 65(4):1007-1018. <https://doi.org/10.1111/j.1741-3737.2003.01007.x>
- Meier, Ann, Kelly Musick, Sarah Flood, and Rachel Dunifon. 2014. "Well-Being Penalty for Employed Mothers? Parental Work Arrangements and Maternal Well-Being." *UCLA CCPR Population Working Papers*.
- Meier, Ann, Kelly Musick, Sarah Flood, and Rachel Dunifon. 2016. "Mothering Experiences: How Single Parenthood and Employment Structure the Emotional Valence of Parenting." *Demography* 53(3):649-74. <https://doi.org/10.1007/s13524-016-0474-x>
- Milkie, Melissa A., Marybeth J. Mattingly, Kei M. Nomaguchi, Suzanne M. Bianchi, and John P. Robinson. 2004. "The Time Squeeze: Parental Statuses and Feelings About Time with Children." *Journal of Marriage and Family* 66(3):739-761. <https://doi.org/10.1111/j.0022-2445.2004.00050.x>
- Miller, Brent C., and Donna L. Sollie. 1980. "Normal Stresses During the Transition to Parenthood." Pp. 129-138 in *Coping with Life Crises. The Springer Series on Stress and Coping*, edited by Moos R.H. Boston, MA: Springer. https://doi.org/10.1007/978-1-4684-7021-5_9

- Mincer, Jacob. 1963. Market Prices, Opportunity Costs, and Income Effects. In C. Christ (Ed.), *Measurement in Economics* (pp. 67 – 82). Stanford, CA: Stanford University Press.
- Mintz, Steven. 2004. *Huck's Raft: A History of American Childhood*. Harvard University Press.
- Mirowsky, John and Ross, Catherine. E. 2003. *Education, Social Status, and Health*. New York: Aldine De Gruyter
- Mirowsky, John and Ross, Catherine. E. 2015. "Education, Health, and the Default American Lifestyle." *Journal of Health and Social Behavior* 56(3):297-306.
<https://doi.org/10.1177/0022146515594814>
- Morgan, S. Philip, and Rosalind Berkowitz King. 2001. "Why Have Children in the 21st Century? Biological Predisposition, Social Coercion, Rational Choice." *European Journal of Population* 17(1):3-20.
- Musick, Kelly, Ann Meier, and Sarah Flood. 2016. "How Parents Fare: Mothers' and Fathers' Subjective Well-Being in Time with Children." *American Sociological Review* 81(5):1069-1095. <https://doi.org/10.1177/0003122416663917>
- National Research Council. 2012. "The Subjective Well-Being Module of the American Time Use Survey: Assessment for its Continuation." National Academies Press.
Retrieved May 5, 2017 (<https://www.nap.edu/catalog/13535/the-subjective-well-being-module-of-the-american-time-use-survey>)
- Nelson, Katherine S., Kostadin Kushlev, and Sonja Lyubomirsky. 2014. "The Pains and Pleasures of Parenting: When, Why, and How is Parenthood Associated with More

or Less Well-Being?” *Psychological Bulletin* 140(3):846-95.

<http://dx.doi.org/10.1037/a0035444>

Nelson, Katherine S., Kostadin Kushlev, Tammy English, Elizabeth W. Dunn, and Sonja Lyubomirsky. 2013. “In Defense of Parenthood: Children are Associated with More Joy Than Misery.” *Psychological Science* 24(1):3-10.

<https://doi.org/10.1177/0956797612447798>

Nelson, Margaret. K. 2010. *Parenting Out of Control: Anxious Parents in Uncertain Times*. New York: New York University Press.

Nomaguchi, Kei M., and Melissa A. Milkie. 2003. “Costs and Rewards of Children: The Effects of Becoming a Parent on Adults' Lives.” *Journal of Marriage and Family* 65(2):356-374. <https://doi.org/10.1111/j.1741-3737.2003.00356.x>

Nomaguchi, Kei M., and Susan L. Brown. 2011. “Parental Strains and Rewards Among Mothers: The Role of Education.” *Journal of Marriage and Family* 73(3):621-636. <https://doi.org/10.1111/j.1741-3737.2011.00835.x>

Nomaguchi, Kei M., Melissa A. Milkie, and Suzanne M. Bianchi. 2005. “Time Strains and Psychological Well-Being: Do Dual-Earner Mothers and Fathers Differ?” *Journal of Family Issues* 26(6):756-792. <https://doi.org/10.1177/0192513X05277524>

Offer, Shira. 2014. “Time with Children and Employed Parents’ Emotional Well-Being.” *Social Science Research* 47:192-203. <https://doi.org/10.1016/j.ssresearch.2014.05.003>

Olshansky, S. Jay, Toni Antonucci, Lisa Berkman, Robert H. Binstock, Axel Boersch-Supan, John T. Cacioppo, Bruce A. Carnes et al. 2012. “Differences in Life Expectancy Due to Race and Educational Differences are Widening, and Many

May Not Catch Up.” *Health Affairs* 31(8):1803-1813.

<https://doi.org/10.1377/hlthaff.2011.0746>

Oreopoulos, Philip, and Kjell G. Salvanes. 2009. *How Large Are Returns to Schooling?*

Hint: Money isn't Everything. Working paper No. 15339. National Bureau of Economic Research. Doi: 10.3386/w15339

Östberg, Monica, and Berit Hagekull. 2000. “A Structural Modeling Approach to the

Understanding of Parenting Stress.” *Journal of Clinical Child Psychology*

29(4):615-625. https://doi.org/10.1207/S15374424JCCP2904_13

Parker, Kim, and Wendy Wang. 2013. “Modern Parenthood: Roles of Moms and Dads

Converge as They Balance Work and Family.” Pew Research Center. Retrieved

April 12, 2017 (<http://www.pewsocialtrends.org/2013/03/14/modern-parenthood-roles-of-moms-and-dads-converge-as-they-balance-work-and-family/>)

Pearlin, Leonard. I. 1989. “The Sociological Study of Stress.” *Journal of Health and*

Social Behavior 30(3):241-256. Doi: 10.2307/2136956

Peiro, Amado. 2006. “Happiness, Satisfaction and Socio-Economic Conditions: Some

International Evidence.” *The Journal of Socio-Economics* 35(2):348-365.

<https://doi.org/10.1016/j.socec.2005.11.042>

Pillemer, Karl, and J. Jill Suitor. 2002. “Explaining Mothers' Ambivalence Toward Their

Adult Children.” *Journal of Marriage and Family* 64(3):602-613.

<https://doi.org/10.1111/j.1741-3737.2002.00602.x>

- Pudrovskaya, Tetyana. 2008. "Psychological Implications of Motherhood and Fatherhood in Midlife: Evidence from Sibling Models." *Journal of Marriage and Family* 70(1):168-181. <https://doi.org/10.1111/j.1741-3737.2007.00469.x>
- Radcliff, Benjamin. 2013. *The Political Economy of Human Happiness: How Voters' Choices Determine the Quality of Life*. New York, NY: Cambridge University Press.
- Raley, Sara, and Suzanne Bianchi. 2006. "Sons, Daughters, and Family Processes: Does Gender of Children Matter?" *Annual Review of Sociology* 32:401-421. <https://doi.org/10.1146/annurev.soc.32.061604.123106>
- Rizzo, Kathryn M., Holly H. Schiffrin, and Miriam Liss. 2013. "Insight into the Parenthood Paradox: Mental Health Outcomes of Intensive Mothering." *Journal of Child and Family Studies* 22(5):614-620. <https://doi.org/10.1007/s10826-012-9615-z>
- Robinson, Michael D., and Gerald L. Clore. 2002. "Belief and Feeling: Evidence for an Accessibility Model of Emotional Self-Report." *Psychological Bulletin* 128(6):934-960. <https://doi.org/10.1037//0033-2909.128.6.934>
- Ross, Catherine E., and Barbara F. Reskin. 1992. "Education, Control at Work, and Job Satisfaction." *Social Science Research* 21(2):134-148. [https://doi.org/10.1016/0049-089X\(92\)90012-6](https://doi.org/10.1016/0049-089X(92)90012-6)
- Ross, Catherine E., and John Mirowsky. 2011. "The interaction of personal and parental education on health." *Social Science & Medicine* 72(4): 591-599. <https://doi.org/10.1016/j.socscimed.2010.11.028>

- Ross, Catherine E., and Marieke Van Willigen. 1996. "Gender, Parenthood, and Anger." *Journal of Marriage and the Family* 58(3):572-584. <https://doi.org/10.2307/353718>
- Ross, Catherine. E., and Wu, Chia-Ling. 1995. "The Links Between Education and Health." *American Sociological Review* 60(5):719-745. Doi: 10.2307/2096319
- Rothrauff, Tanja, and Teresa M. Cooney. 2008. "The Role of Generativity in Psychological Well-Being: Does it Differ for Childless Adults and Parents?" *Journal of Adult Development* 15(3-4):148-159. <https://doi.org/10.1007/s10804-008-9046-7>
- Ryan, Richard M., and Edward L. Deci. 2001. "On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being." *Annual Review of Psychology* 52(1):141-166. <https://doi.org/10.1146/annurev.psych.52.1.141>
- Ryff, Carol D., and Corey Lee M. Keyes. 1995. "The Structure of Psychological Well-Being Revisited." *Journal of Personality and Social Psychology* 69(4):719-727. <http://dx.doi.org/10.1037/0022-3514.69.4.719>
- Sayer, Liana C. 2005." Gender, Time and Inequality: Trends in Women's and Men's Paid Work, Unpaid Work and Free Time." *Social Forces* 84(1):285-303. <https://doi.org/10.1353/sof.2005.0126>
- Sayer, Liana C., Suzanne M. Bianchi, and John P. Robinson. 2004. "Are Parents Investing Less in Children? Trends in Mothers' and Fathers' Time with Children." *American Journal of Sociology* 110(1):1-43. <https://doi.org/10.1086/386270>

- Sayer, Liana, Suzanne Bianchi, Jeffrey L. Stueve, Joseph Pleck, and Sandra L. Hofferth. 2012. "The Demography of Fathers: What Fathers Do." In *Handbook of Father Involvement* (pp. 79-106). Routledge Academic.
- Schieman, Scott, Paul Glavin, and Melissa A. Milkie. 2009. "When Work Interferes with Life: Work-nonwork Interference and the Influence of Work-Related Demands and Resources." *American Sociological Review* 74(6):966-988.
<https://doi.org/10.1177/000312240907400606>
- Schieman, Scott, Yuko Kurashina Whitestone, and Karen Van Gundy. 2006. "The Nature of Work and the Stress of Higher Status." *Journal of Health and Social Behavior*, 47(3):242-257. <https://doi.org/10.1177/002214650604700304>
- Schneider, Daniel, and Orestes P. Hastings. 2017. "Income Inequality and Household Labor." *Social Forces* 96(2):481-506. <https://doi.org/10.1093/sf/sox061>
- Schwartz, Barry, and Andrew Ward. 2004. "Doing Better but Feeling Worse: The Paradox of Choice." *Positive Psychology in Practice*, 86-104.
- Schwarz, Norbert, and Fritz Strack. 1999. "Reports of Subjective Well-Being: Judgmental Processes and their Methodological Implications." *Well-Being: The Foundations of Hedonic Psychology* 7:61-84.
- Schwarz, Norbert, and Gerald L. Clore. 1983. "Mood, Misattribution, and Judgments of Well-Being: Informative and Directive Functions of Affective States." *Journal of Personality and Social Psychology* 45(3):513-523. <http://dx.doi.org/10.1037/0022-3514.45.3.513>

- Senior, Jennifer. 2014. *All Joy and No Fun: The Paradox of Modern Parenthood*. New York: Harper Collins.
- Simon, Robin W. 1992. "Parental Role Strains, Salience of Parental Identity and Gender Differences in Psychological Distress." *Journal of Health and Social Behavior* 33(1):25-35. <https://doi.org/10.2307/2136855>
- Simon, Robin W. 2008. "The Joys of Parenthood, Reconsidered." *Contexts: Understanding People in Their Social Worlds* 7(2):40–45. <https://doi.org/10.1525/ctx.2008.7.2.40>
- Simon, Robin. W. 1995. Gender, multiple roles, role meaning, and mental health. *Journal of Health and Social Behavior* 36(2):182-194. Doi: 10.2307/2137224
- Singh-Manoux, Archana, Michael G. Marmot, and Nancy E. Adler. 2005. "Does Subjective Social Status Predict Health and Change in Health Status Better than Objective Status?" *Psychosomatic Medicine* 67(6):855-861. Doi: 10.1097/01.psy.0000188434.52941.a0
- Smock, Pamela J., Wendy D. Manning, and Meredith Porter. 2005. "Everything's there Except Money: How Money Shapes Decisions to Marry Among Cohabitors." *Journal of Marriage and Family* 67(3):680-696. <https://doi.org/10.1111/j.1741-3737.2005.00162.x>
- Stack, Carol B. 1975. *All Our Kin: Strategies for Survival in a Black Community*. New York, NY: Basic Books.
- Stanca, Luca. 2012. "Suffer the Little Children: Measuring the Effects of Parenthood on Well-being Worldwide." *Journal of Economic Behavior and Organization* 81(3):742-750. <https://doi.org/10.1016/j.jebo.2010.12.019>

- Steger, Michael F., Shigehiro Oishi, and Todd B. Kashdan. 2009. "Meaning in Life Across the Life Span: Levels and Correlates of Meaning in Life from Emerging Adulthood to Older Adulthood." *The Journal of Positive Psychology* 4(1):43-52. <https://doi.org/10.1080/17439760802303127>
- Steptoe, Andrew, Jane Wardle, and Michael Marmot. 2005. "Positive Affect and Health-Related Neuroendocrine, Cardiovascular, and Inflammatory Processes." *Proceedings of the National Academy of Sciences of the United States of America* 102(18):6508-6512. <https://doi.org/10.1073/pnas.0409174102>
- Stevenson, Betsey, and Justin Wolfers. 2008. *Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox*. Working paper No. 14282. National Bureau of Economic Research. Doi: 10.3386/w14282
- Stone, Arthur A., Saul S. Shiffman, and Marten W. DeVries. 1999. "Ecological Momentary Assessment." Pp. 26-39 in *Well-being: The Foundations of Hedonic Psychology*, edited by D. Kahneman, E. Diener, and N. Schwarz. New York, NY: Russell Sage Foundation.
- Stone, Arthur A., Stefan Schneider, and James K. Harter. 2012. "Day-of-Week Mood Patterns in the United States: On the Existence of 'Blue Monday', 'Thank God it's Friday' and Weekend Effects." *The Journal of Positive Psychology* 7(4):306-314. <https://doi.org/10.1080/17439760.2012.691980>
- Stone, Pamela. 2007. *Opting out? Why women Really Quit Careers and Head Home*. Berkeley, CA: University of California Press.
- Strack, Fritz, Leonard L. Martin, and Norbert Schwarz. 1988. "Priming and Communication: Social Determinants of Information Use in Judgments of Life

Satisfaction.” *European Journal of Social Psychology* 18(5):429-442.

<https://doi.org/10.1002/ejsp.2420180505>

Tay, Louis, Mitchel N. Herian, and Ed Diener. 2014. “Detrimental Effects of Corruption and Subjective Well-Being: Whether, How, and When.” *Social Psychological and Personality Science* 5(7):751-759. <https://doi.org/10.1177/1948550614528544>

Taylor, John, and R. Jay Turner. 2001. “A Longitudinal Study of The Role and Significance of Mattering to Others for Depressive Symptoms.” *Journal of Health and Social Behavior* 42(3):310-325. Doi: 10.2307/3090217

Taylor, Paul, Cary Funk, and April Clark. 2007. “Fewer Mothers Prefer Full-Time Work.” *Pew Research Center, A Social & Demographic Trends Report*. Retrieved on January 12, 2018 <http://www.pewresearch.org/files/old-assets/social/pdf/WomenWorking.pdf>

Thoits, Peggy A. 1992. “Identity Structures and Psychological Well-Being: Gender and Marital Status Comparisons.” *Social Psychology Quarterly* 55(3):236-256. <https://doi.org/10.2307/2786794>

Thoits, Peggy A. 2010. “Stress and health: Major findings and policy implications.” *Journal of Health and Social Behavior*, 51(1_suppl): S41-S53.

Thomas, Lawrence. G. 1956.” Leisure Pursuits by Socioeconomic Strata.” *Journal of Educational Sociology* 29(9):367-377. doi:10.2307/2264798

Townsend, Nicholas. 2010. *Package Deal: Marriage, Work and Fatherhood in Men's Lives*. Philadelphia: Temple University Press.

Tuccitto, Daniel E., Peter R. Giacobbi Jr, and Walter L. Leite. 2010. “The Internal Structure of Positive and Negative Affect: A Confirmatory Factor Analysis of the

PANAS.” *Educational and Psychological Measurement* 70(1):125-141.

<https://doi.org/10.1177/0013164409344522>

Twenge, Jean M., Keith W. Campbell, and Craig A. Foster. 2003. “Parenthood and Marital Satisfaction: A Meta-Analytic Review.” *Journal of Marriage and Family* 65(3):574-583. <https://doi.org/10.1111/j.1741-3737.2003.00574.x>

Umberson, Debra, and Walter R. Gove. 1989. “Parenthood and Psychological Well-Being: Theory, Measurement, and Stage in The Family Life Course.” *Journal of Family Issues* 10(4):440-462. <https://doi.org/10.1177/019251389010004002>

Umberson, Debra, Tetyana Pudrovska, and Corinne Reczek. 2010. “Parenthood, Childlessness, and Well-Being: A Life Course Perspective.” *Journal of Marriage and Family* 72(3):612-629. <https://doi.org/10.1111/j.1741-3737.2010.00721.x>

Urry, Heather, Jack Nitschke, Isa Dolski, Daren Jackson, Kim Dalton, Corrina Mueler, Melissa Rosenkranz, Carol Ryff, Burton Singer and Richard Davidson. 2004. “Making a Life Worth Living.” *Psychological Science* 15(6):367–72. <https://doi.org/10.1111/j.0956-7976.2004.00686.x>

Veroff, Joseph, Elizabeth Ann Malcolm Douvan, and Richard A. Kulka. 1981. *The Inner American: A Self-portrait from 1957 to 1976*. New York, NY: Basic Books

Vidal, Matt. 2013. “Inequality and the growth of bad jobs.” *Contexts* 12(4):70-72. <https://doi.org/10.1177/1536504213511221>

Villarica, Hans. 2012. “Study of the Day: Maybe Parents Actually are Happier than Non-Parents” The Atlantic. Retrieved July 5, 2016
(<https://www.theatlantic.com/health/archive/2012/05/study-of-the-day-maybe-parents-actually-are-happier-than-non-parents/257375/>)

- Warren, Elizabeth, and Amelia W. Tyagi. 2004. *The Two-Income Trap: Why Middle-Class Parents are Going Broke*. New York: Basic Books.
- Watson, David, Lee Anna Clark, and Auke Tellegen. 1988. "Development and Validation of Brief Measures of Positive and Negative Affect: the PANAS scales." *Journal of Personality and Social Psychology* 54(6):1063-1070.
- Winkleby, Marilyn A., Darius E. Jatulis, Erica Frank, and Stephen P. Fortmann. 1992. "Socioeconomic Status and Health: How Education, Income, and Occupation Contribute to Risk Factors for Cardiovascular Disease." *American Journal of Public Health* 82(6):816-820. Doi: 10.2105/AJPH.82.6.816
- Yeung, W. Jean, John F. Sandberg, Pamela E. Davis-Kean, and Sandra L. Hofferth. 2001. "Children's Time with Fathers in Intact Families." *Journal of Marriage and Family* 63(1):136-154. <https://doi.org/10.1111/j.1741-3737.2001.00136.x>
- Zelizer, Viviana. A. 1994. *Pricing the Priceless Child: The Changing Social Value of Children*. Princeton, NJ: Princeton University Press.

APPENDIX A: SUPPLEMENTARY MATERIAL, STUDY 1

Table A.1 Study Information and Summarized Results for Studies Comparing Parents and Nonparents

Authors and Year	Country	Data and Sample	Evaluative WB?	Experienced WB?	Positive and Negative WB?	Findings
Alesina, Di Tella, and MacCulloch 2004	U.S. and 12 European countries	U.S. (GSS; 1981-1996, N=19,895); Europe (ESS, 1975-1992, N=103,773); Ages:18+	U.S. (Global Happiness); Europe (Global life satisfaction)	No	No	In the U.S., regardless of parity, having children was associated with decreased happiness. In Europe this was true only for parents of three or more children.
Barnett, Marshall, and Pleck 1992	U.S.	N=300 Boston area men; 1989-1990; Ages:25-40	Anxiety and Depression	No	No	No significant difference in psychological distress between fathers and nonfathers.
Bird 1997	U.S.	Survey of Work, Family and Wellbeing; 1990; N=1601; Ages:18-59	Psychological Distress Index.	No	No	Parents reported higher levels of psychological distress (highest for mothers) than nonparents. Effects were moderated by social and economic hardship.
Connelly and Kimmel 2015	U.S.	Wellbeing Module of the ATUS; 2010; N=3,295 parents	No	Experienced Happiness; Meaning; Sadness; Stress; Fatigue	Yes, but does not compare parents to nonparents	Both fathers and mothers enjoyed the time they spent with children more than other daily activities.

Deaton and Stone 2014	U.S. and 161 other countries	U.S. (GHWBI; 2008-2012; N=1.77 mil); World (Gallup World Pool; 2006-2012; N=1.07 mil); Ages:34-46	Global life satisfaction	Ladder; Happiness; Smiling; Enjoyment; Sadness; Anger; Worry; Stress; Pain	Yes, but not linked to specific activities	In the U.S., parenthood was associated with lower global life satisfaction. For experienced measures, parenthood was associated with more positive and more negative emotions.
Di Tella, MacCulloch, and Oswald 2003	U.S. and Europe	U.S. (GSS; 1972-1994; N=26,668); Europe (ESS; 1975-1992; N=271,224); Ages:18+	Global Happiness and Satisfaction	No	No	For both samples, parents reported lower levels of happiness and satisfaction compared to nonparents.
Evenson and Simon 2005	U.S.	NSFH; 1997-1988; N=11,473; Ages:19+	Depression	No	No	Parents reported more depression than nonparents. Marital status, but not gender, moderated this association.
Galinsky, Bond, and Friedman 1996	U.S.	U.S. workers; 1992; N=2,958; Ages:18-64	Stress; Satisfaction with personal and family life	No	No	Parents reported more stress than nonparents, but no difference in satisfaction by parental status was found. Mothers reported less satisfaction and more stress than fathers.
Herbst and Ifcher 2016	U.S.	GSS (1972-2008; N=42,298; M _{age} =44); LSS (1975-1998; N=75,237; M _{age} =47);	Global Happiness (GSS) and Life Satisfaction (DDB)	No	No	Parents are becoming happier overtime relative to nonparents. The parental happiness gap is sensitive to the time period being analyzed.

Kapteyn et al. 2015	U.S.	RAND American Life Panel; 2012; N=5,550; Ages:18+	Three sets of life satisfaction measures	Three sets of experienced wellbeing measures	Yes	Children's presence in the household was associated with lower evaluative wellbeing but not with lower experienced wellbeing.
McLanahan and Adams 1989	U.S.	Americans View their Mental Health Surveys; 1957 and 1976 N=4,464; Ages:21+	Global Happiness, Marital Happiness, Efficacy, Worry, Anxiety, Health	No	Yes	Parents reported lower: happiness, marital satisfaction, levels of feeling efficacious and more worries, compared to nonparents. Parenthood was not significantly associated with health or anxiety.
Musick, Meier, and Flood 2016	U.S.	Wellbeing Module of ATUS; 2010, 2012, 2013; N=12,163 parents; Mage=38.48	No	Experienced Happiness; Meaning; Sadness; Stress; Fatigue	Yes, but does not compare parents to nonparents	Parents reported higher emotional wellbeing in activities with children than without. Mothers reported fewer positive and more negative emotions compared to fathers.
Nelson et al. 2013 Study 1	U.S.	WVS; 1982, 1990, 1995, 1999; N=6,906; Ages:17-96	Global happiness and life satisfaction	No	No	Parents reported more happiness and life satisfaction than nonparents.
Nelson et al. 2013 Study 2	U.S.	N=329 adults; 2011; Ages:18-94	No	ESM: 8 positive and 11 negative emotions	Yes	Parents reported feeling relatively better on a day-to day basis than nonparents.

Nelson et al. 2013 Study 3	U.S.	N= 186 parents; Median age:36	No	DRM: Positive emotions; Meaning	No	Parents derive more positive emotion from childcare activities than other daily activities.
Nomaguchi and Milkie 2003	U.S.	NSFH; 1987- 1988; 1992-1994 N=1,933; Ages:18-44	Social integration; Self- esteem; Self- efficacy; Disagreement with spouse; Depression	No	Yes	Parenthood was not associated with depression or self-esteem. New parents reported higher social integration, and lower efficacy than nonparents. Marital status and gender moderated all associations (except for self-esteem).
Ross and Willigen 1996	U.S.	The Work, Family and Wellbeing Sample; 1990; N=2,031; Ages:18-90	Anger	No	No	Parents (highest for mothers) reported more anger than nonparents. Additional children in the household increased anger. Effects were moderated by childcare and economic strains.
Rothrauff and Cooney 2008	U.S.	MIDUS; 1995; N=2507; Ages:35- 74	Psychological wellbeing and Generativity	No	Yes	Parenthood was not associated with psychological wellbeing or generativity for either men or women.
Twenge, Campbell, and Foster 2003	U.S.	meta-analysis	Marital satisfaction	No	N/A	Parents reported lower marital satisfaction compared to nonparents. The effect was more negative among higher SES

						groups, younger birth cohorts, and in more recent years.
Umberson and Gove 1989	U.S.	N=2,246 adults; 1974-1975; Ages:18+	Positive affect; Happiness; Life and Home Satisfaction; Self-esteem; Agitation; Depression; Meaninglessness	No	Yes	Parents living with minor children reported more meaning and self-esteem, more life and home satisfaction but also lower levels of happiness and more agitation compared to nonparents.
Musick, Meier, and Flood 2016	U.S.	Wellbeing Module of ATUS; 2010, 2012, 2013; N=12,163 parents; Mage=38.48	No	Experienced Happiness; Meaning; Sadness; Stress; Fatigue	Yes, but does not compare parents to nonparents	Parents reported higher emotional wellbeing in activities with children than without. Mothers reported fewer positive and more negative emotions compared to fathers.
Nelson et al. 2013 Study 1	U.S.	WVS; 1982, 1990, 1995, 1999; N=6,906; Ages:17-96	Global happiness and life satisfaction	No	No	Parents reported more happiness and life satisfaction than nonparents.
Nelson et al. 2013 Study 2	U.S.	N=329 adults; 2011; Ages:18-94	No	ESM: 8 positive and 11 negative emotions	Yes	Parents reported feeling relatively better on a day-to-day basis than nonparents.
Nelson et al. 2013 Study 3	U.S.	N= 186 parents; Median age:36	No	DRM: Positive emotions; Meaning	No	Parents derive more positive emotion from childcare activities than other daily activities.

Nomaguchi and Milkie 2003	U.S.	NSFH; 1987-1988; 1992-1994 N=1,933; Ages:18-44	Social integration; Self-esteem; Self-efficacy; Disagreement with spouse; Depression	No	Yes	Parenthood was not associated with depression or self-esteem. New parents reported higher social integration, and lower efficacy than nonparents. Marital status and gender moderated all associations (except for self-esteem).
Ross and Willigen 1996	U.S.	The Work, Family and Wellbeing Sample; 1990; N=2,031; Ages:18-90	Anger	No	No	Parents (highest for mothers) reported more anger than nonparents. Additional children in the household increased anger. Effects were moderated by childcare and economic strains.
Rothrauff and Cooney 2008	U.S.	MIDUS; 1995; N=2507; Ages:35-74	Psychological wellbeing and Generativity	No	Yes	Parenthood was not associated with psychological wellbeing or generativity for either men or women.
Twenge, Campbell, and Foster 2003	U.S.	meta-analysis	Marital satisfaction	No	N/A	Parents reported lower marital satisfaction compared to nonparents. The effect was more negative among higher SES groups, younger birth cohorts, and in more recent years.

Umberson and Gove 1989	U.S.	N=2,246 adults; 1974-1975; Ages:18+	Positive affect; Happiness; Life and Home Satisfaction; Self-esteem; Agitation; Depression; Meaninglessness	No	Yes	Parents living with minor children reported more meaning and self-esteem, more life and home satisfaction but also lower levels of happiness and more agitation compared to nonparents.
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Note: GSS=General Social Survey; ESS=Eurobarometer Survey Series; ATUS=American Time Use Survey; GHWBI= Gallup-Healthways Wellbeing Index; NSFH=National Study of Families and Households; LSS=DDB Needham Life Style Survey; WVS=World Values Survey; DRM=Day Reconstruction method; ESM=Experience Sampling Method; MIDUS= Midlife Development in the United States; SES= Socio-economic status.

Table A.2 ATUS Codes for Each Activity

Activity	ATUS Code
All time	Includes all activities reported in the ATUS, including childcare.
Market Work	“Work and work-related activities” includes time spent working, doing activities as part of one's job (e.g., having lunch with a client), engaging in income-generating activities (e.g., selling homemade crafts), and looking for jobs and interviewing.
Nonmarket Work	<p>“Household activities” includes time spent maintaining ones’ household (e.g., housecleaning, cooking, yard care, pet care, vehicle maintenance and repair, and home repair and renovation) and household management activities (e.g., paperwork, mail, and email).</p> <p>“Household services” includes time spent obtaining and purchasing household services provided by someone else (e.g., yard and house cleaning, cooking, pet care, tailoring and laundering services, and vehicle and home repairs, maintenance, and construction) and watching someone else perform paid household activities provided "watching" was the respondent's primary activity.</p>
Leisure	<p>“Socializing, relaxing and leisure” captures social activities (e.g., communicating with others, attending parties and meetings), leisure activities (e.g., relaxing, playing (passive) games (unless playing with children only), watching television, playing or listening to music, reading, writing, and all hobbies), time spent during arts, cultural, and entertainment activities (e.g., attending events or shows related to nature (zoo, arboretum), the arts (galleries, poetry readings), amusement (amusement parks, circus, sightseeing), and performance (plays, ballet).</p> <p>“Eating and drinking” captures all eating and drinking not done as work or a volunteer activity, whether the respondent was alone, with others, at home, at a place of purchase, in transit, or somewhere else.</p> <p>“Sports, exercise and recreation” captures the respondent's participation in sports, exercise, and recreational activities like: pleasure boating, throwing a Frisbee, kite flying, or ballooning, and active, participatory outdoor games or activities, such as horseshoes, croquet, and paintball. The category also captures the respondent's attendance at or observation of these activities or events when done by others.</p>

Note: Activities shorter than 5 minutes, grooming, personal activities, and sleeping were not eligible for the Wellbeing Module and are therefore not included in the present analysis.

Table A.3 Affective Wellbeing Gap between Parents and Other-adults by Activity Type

	<i>B (SE) Affective Wellbeing</i>					
	Happiness			Meaning		
	Work	Hwork	Leisure	Work	Hwork	Leisure
	(1)	(2)	(3)	(4)	(5)	(6)
Parents (ref. Other-adults)	0.09	0.08	0.23***	0.13+	0.23***	0.48***
Age	0.01*	-0.00	-0.01***	0.01***	0.01*	0.01***
Female (1=yes)	0.01	0.04	0.13***	0.08	0.06	0.21***
Race/ethnicity: (ref.= White NH)						
Black NH	0.40***	0.21**	0.22***	0.51***	0.57***	0.47***
Asian NH	-0.14	0.30***	0.17**	0.33*	0.52***	0.19*
Other NH	0.05	-0.15	0.03	0.34+	0.14	0.28*
Hispanic	0.29***	0.33***	0.35***	0.26**	0.44***	0.47***
Employment status (ref.=Full-time)						
Part-time work	0.14	-0.08	-0.04	-0.03	-0.08	-0.03
Unemployed	-	-0.10	-0.11+	-	0.09	-0.10
No paid work	-	-0.16**	-0.24***	-	-0.13+	-0.18***
Student (1=yes)	-0.19+	-0.16*	-0.01	-0.11	0.04	0.10+
Spouse (1=yes)	0.08	0.23***	0.25***	-0.03	0.18**	0.23***
Household income: (ref.= <\$25k)						
\$25k - \$49.99k	-0.06	-0.08	0.01	-0.24*	-0.06	-0.05
\$50k - \$99.99k	-0.04	-0.08	0.00	-0.13	-0.15+	-0.06
> \$100 k	-0.01	-0.16*	-0.04	0.04	-0.30***	-0.09
Act home	-0.20**	-0.32***	-0.20***	-0.05	-0.33***	-0.57***
Duration	-0.00+	-0.00	0.00	0.00	0.00***	-0.00*
Constant	3.26*** (0.31)	4.23*** (0.24)	4.56*** (0.15)	3.33*** (0.33)	3.64*** (0.28)	3.59*** (0.19)
rho	0.605	0.523	0.511	0.714	0.556	0.428
N activities	3,837	7,698	15,147	3,829	7,684	15,123
N respondents	3,274	6,176	10,710	3,267	6,165	10,691

Note: Results from random effect models. Standard errors not shown. Controls for individual, household, survey, activity characteristics not shown (full results available upon request). Respondents whose employment status was “unemployed” (n=106) or “no paid work” (n=39) but who reported some work for pay (e.g., making crafts and selling them) were excluded from the analysis looking exclusively at time in market work.

Significant at: *** p<0.001. **p<0.01, * p<0.05. Ref. = reference group. Work=Market work; Hwork=Nonmarket work; NH=non-hispanic.

Cont. Table A.3 Affective Wellbeing Gap between Parents and Other-adults by Activity Type

	Sadness			Stress			Fatigue		
	Work	Hwork	Leisure	Work	Hwork	Leisure	Work	Hwork	Leisure
	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Parents (ref.=Other-adults)	-0.04	-0.05	-0.11***	-0.01	0.14**	0.07*	0.05	0.10+	0.12**
Age	0.02***	0.02***	0.02***	0.00	0.00	0.01***	-0.01**	-0.01*	-0.00
Female (1=yes)	0.10*	0.04	0.04	0.29***	0.27***	0.09**	0.33***	0.41***	0.33***
Race/ethnicity: (ref.= White NH)									
Black NH	0.03	0.02	-0.02	-0.47***	-0.26***	-0.19***	-0.18	-0.25**	-0.26***
Asian NH	0.34**	0.17*	0.16**	-0.05	-0.01	-0.03	0.21	-0.33**	-0.43***
Other NH	-0.17	0.13	-0.08	-0.07	0.12	-0.19+	-0.05	-0.09	-0.14
Hispanic	0.22**	0.11*	0.06	-0.03	-0.01	0.02	0.16	-0.10	-0.19***
Employment status (ref.=Full time)									
Part-time work	0.02	0.15**	0.03	-0.20*	0.11+	0.00	-0.24*	-0.04	-0.11*
Unemployed	-	0.28***	0.23***	-	0.28**	0.27***	-	-0.25**	-0.51***
No paid work	-	0.26***	0.26***	-	0.18**	0.24***	-	0.11	-0.03
Student (1=yes)	0.13	0.06	-0.02	0.17	0.34***	0.15**	0.40**	0.18*	0.03
Spouse (1=yes)	-0.10	-0.24***	-0.16***	0.05	-0.16**	-0.15***	0.05	-0.07	-0.06
Household income: (ref.= <\$25k)									
\$25k - \$49.99k	-0.11	-0.17**	-0.17***	-0.14	-0.21**	-0.23***	-0.08	-0.19**	-0.15**
\$50k - \$99.99k	-0.20*	-0.13*	-0.20***	-0.27*	-0.22**	-0.24***	-0.17	-0.07	-0.13*
> \$100 k	-0.26**	-0.18**	-0.22***	-0.33**	-0.17*	-0.23***	-0.29*	-0.17+	-0.22***
Act home (1=yes)	0.06	-0.02	0.05**	0.00	0.06	-0.05+	0.02	0.08	0.37***
Duration (min/day)	0.00***	0.00+	0.00***	0.00***	0.00**	0.00	0.00***	0.00**	-0.00
Constant	0.39	0.39*	0.30*	2.77***	1.22***	1.06***	3.45***	2.67***	2.48***
rho	0.647	0.586	0.583	0.709	0.544	0.591	0.574	0.529	0.514
N activities	3,842	7,705	15,159	3,841	7,705	15,163	3,843	7,706	15,154
N respondents	3,276	6,180	10,717	3,277	6,180	10,719	3,278	6,180	10,714

Table A.4 Affective Wellbeing Gap (Parents - Other-adults) by Respondent's Gender during Time when Child may be Present

	Men			Women			Overall Diff
	P	O	WB Gap	P	O	WB Gap	
<i>Happiness</i>							
All time	4.386	4.187	0.199***	4.450	4.284	0.165***	0.034
Market work	3.864	3.895	-0.031	3.975	3.758	0.216*	-0.185*
Nonmarket W	4.144	3.954	0.189*	4.123	4.114	0.009	0.180+
Leisure	4.551	4.348	0.203***	4.705	4.447	0.258***	-0.054
<i>Meaning</i>							
All time	4.331	3.855	0.476***	4.466	3.970	0.496***	-0.020
Market work	4.307	4.197	0.110	4.403	4.244	0.159	-0.049
Nonmarket W	4.156	3.836	0.320***	4.159	3.991	0.168*	0.152
Leisure	4.306	3.884	0.421***	4.565	4.030	0.535***	-0.114
<i>Sadness</i>							
All time	0.502	0.552	-0.050+	0.518	0.609	-0.091**	-0.041
Market work	0.613	0.622	-0.009	0.688	0.767	-0.080	-0.070
Nonmarket W	0.498	0.571	-0.072	0.552	0.591	-0.039	0.033
Leisure	0.469	0.533	-0.064+	0.472	0.619	-0.147***	-0.083
<i>Stress</i>							
All time	1.328	1.205	0.123**	1.516	1.403	0.113**	0.010
Market work	2.209	2.166	0.043	2.460	2.520	-0.059	-0.016
Nonmarket W	1.202	1.118	0.083	1.511	1.331	0.181*	-0.097
Leisure	1.108	0.995	0.112*	1.168	1.128	0.040	0.072
<i>Fatigue</i>							
All time	2.190	2.105	0.085*	2.538	2.450	0.088*	-0.003
Market work	2.376	2.283	0.093	2.668	2.668	0.000	0.094
Nonmarket W	2.100	2.140	-0.040	2.590	2.404	0.186*	-0.146*
Leisure	2.213	2.075	0.137*	2.531	2.430	0.102+	0.036

Note: Results from random effect models including all controls (full results available upon request). Well-being (WB) gap= difference between male parents (P) and male other-adults (O; the same for female). A “+” value= parents report more of that affect, than other-adults (reverse for a “-” value). Overall difference = difference between the male gap and the female gap. A “+” value= the gap between parents and other-adults is larger for males than females (reverse for a “-” value). Significant at: *** $p < .001$,

** $p < .01$, * $p < .05$, + $p < .1$.

Table A.5 Affective Wellbeing Gap (Parents - Other-adults) by Respondent's Gender during Time when Child is Not Present

	Men			Women			Overall Diff
	P	O	WB Gap	P	O	WB Gap	
<i>Happiness</i>							
All time	4.131	4.158	-0.026	4.181	4.257	-0.076*	-0.050
Market work	3.845	3.900	-0.055	3.948	3.765	0.183*	-0.128*
Nonmarket W	4.031	3.933	0.097	3.982	4.094	-0.112	-0.015*
Leisure	4.286	4.324	-0.038	4.411	4.419	-0.008	0.029
<i>Meaning</i>							
All time	4.019	3.852	0.166***	4.097	3.978	0.120**	0.047
Market work	4.300	4.214	0.087	4.388	4.262	0.125	-0.039
Nonmarket W	3.991	3.830	0.161	3.977	3.991	-0.014	0.147
Leisure	3.899	3.875	0.024	4.134	4.022	0.112+	-0.088
<i>Sadness</i>							
All time	0.574	0.575	0.000	0.600	0.630	-0.030	-0.030
Market work	0.617	0.624	-0.008	0.700	0.770	-0.070	-0.062
Nonmarket W	0.494	0.596	-0.102+	0.547	0.604	-0.058	0.044
Leisure	0.551	0.547	0.005	0.600	0.635	-0.036	-0.031
<i>Stress</i>							
All time	1.442	1.267	0.175***	1.638	1.468	0.170***	0.005
Market work	2.215	2.178	0.037	2.504	2.532	-0.029	0.009
Nonmarket W	1.134	1.139	-0.005	1.489	1.347	0.142+	-0.137
Leisure	1.223	1.033	0.190**	1.286	1.169	0.118*	0.073
<i>Fatigue</i>							
All time	2.230	2.116	0.114*	2.537	2.469	0.069	0.045
Market work	2.390	2.287	0.102	2.685	2.671	0.014	0.089
Nonmarket W	2.034	2.168	-0.134	2.563	2.431	0.132+	0.001*
Leisure	2.303	2.105	0.199**	2.604	2.463	0.140*	0.059

Note: Results from random effect models including all controls (full results available upon request). Well-being (WB) gap= difference between male parents (P) and male other-adults (O; the same for female). A “+” value= parents report more of that affect, than other-adults (reverse for a “-” value). Overall difference = difference between the male gap and the female gap. A “+” value= the gap between parents and other-adults is larger for males than females (reverse for a “-” value). Significant at: *** $p < .001$, ** $p < .01$, * $p < .05$, + $p < .1$.