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# The Parental Well-Being Gap Before and After the COVID-19 Pandemic

Morgan Renee Koziol

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The Parental Well-Being Gap Before and After the COVID-19 Pandemic

By

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Bachelor of Arts  
Baylor University, 2021

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## DEDICATION

To my mother, Christie O'Neill-Velazquez, and brother, Austin Koziol, who did not get to see this dream come to fruition.

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## ABSTRACT

Prior research has examined the emotional costs and benefits associated with parenting. In general, this body of literature finds that parents experience lower levels of subjective well-being compared to non-parents—a phenomenon referred to as the parental well-being gap. There is evidence that this parental well-being gap has narrowed or disappeared altogether in more recent years. However, the COVID-19 pandemic presented unprecedented challenges to parents that may have resulted in a widening or reopening of this gap once again. This project aims to test this possibility by drawing on data from The General Social Survey that capture the survey year prior to (2018) and after (2021) the pandemic. My analyses incorporate an array of subjective well-being measures that assess the parental well-being gap in general (general happiness) and in two key contexts—marital relationships (marital satisfaction) and work (job satisfaction). The findings suggest that the parental well-being gap was larger in 2018 than 2021. While the pandemic was historically catastrophic, it may have provided parents with more positive experiences than non-parents. This study underscores the idea that the costs and benefits of parenting may balance each other out and can vary across contexts.

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## CHAPTER 1: INTRODUCTION

Although the vast majority of contemporary Americans report that raising children is considered “one of life’s greatest joys” (Hansen, 2012), a substantial body of research indicates that, on average, parents of minor children experience lower levels of subjective well-being compared to adults without children (Sisson, 2011; Negraia & Augustine, 2020; Nomaguchi, 2012; Sisson 2011). Lower levels of subjective well-being in parents of minor children include lower levels of happiness, marital satisfaction, and life satisfaction, and greater levels of stress, anxiety, anger, and depression (Glass et al., 2016; Stanca, 2012; Twenge et al., 2003). This phenomenon has been called the parental well-being gap. The basic argument for why parents experience lower levels of well-being than similar adults without children is that parents experience more stressors (Pollmann-Schult, 2014). These include heightened challenges balancing work and family demands, increased financial responsibilities, and concerns regarding children’s development and welfare, in tandem with more limited opportunities for stress-alleviating activities, such as sleep and leisure (see Nelson et al., 2014b for a comprehensive argument).

At the same time, there is new evidence that the disparity in well-being between parents and non-parents has decreased over the past few decades. For example, drawing on two sources of nationally representative data—the General Social Survey (GSS) and the DDB Lifestyle Survey (LSS)—Herbst and Ifcher (2016) observe a consistent increase in the happiness of parents relative to non-parents over the past few decades.

Based on their findings, the authors conclude that the parental well-being gap has progressively narrowed. Other studies based on present-day samples (e.g., Negraia & Augustine, 2020; Nomaguchi & Milkie, 2023; Pollmann-Schult, 2014), also suggest that the parental well-being gap has narrowed or disappeared altogether. Indeed, Nomaguchi & Milkie, (2023) report that in 2018 (based on analysis of the GSS), the parenting well-being gap had disappeared. This body of research, however, raises an important question: how has the shape of the parental well-being gap changed as a result of the COVID-19 pandemic, which created unprecedented challenges for parents and non-parents? In other words, did the well-being of parents compared to non-parents worsen because of the pandemic?

Answering this question is not only important to continue refining our collective understanding of the parental well-being gap, but it will also help provide critical insights into how the pandemic potentially affected the subjective well-being of parents, whose lives were uniquely disrupted by the pandemic due to school and child care closures, work instability, and reduced services, as well as greater parenting challenges, such as children's school struggles and parents' feelings of uncertainty (Feinberg et al., 2022) about their children's well-being. These challenges have been well-documented. At the same time, there has been little research examining the shape of the parental well-being gap before and after the pandemic. The small body of extant studies generally focused on the well-being of parents during the pandemic or psychological aspects of well-being (e.g., depression, stress), and relied on non-representative samples or data from outside of the U.S. (Cameron et al., 2022; Westrupp et al., 2021; Zeduri et al., 2022).

To answer the present study question and address such limitations, I will draw on the General Social Survey (GSS; 2018-2021), which includes repeated measures of subjective well-being across the pre- and post-pandemic period, including in two key domains for which the lives of parents were differentially affected: specifically, family and work. These measures include general happiness, marital satisfaction, and satisfaction with work. I will also go several steps further by (1) assessing whether any increase in the parental well-being gap after the pandemic was greater for mothers compared to fathers, who bore an increased parenting burden during the pandemic (Augustine & Prickett, 2022); (2) or whether any increase in the parental well-being gap differentially affected parents of lower versus higher levels of education, as less educated parents faced greater challenges in certain regards (e.g., lack of access to remote work, greater financial instability) as well. Lastly, I consider (3) variation in the parental well-being gap by whether parents had minor or adult children, the latter of whom may have in fact provided key sources of support for parents during the pandemic.

#### *Parental Well-Being and the COVID-19 Pandemic*

Parenthood is characterized as a complex process that can both provide parents with joys and create stressors (Facwett, 1988; Koropecj-Cox, 2002; Schoen et al., 1997). The negative aspects of parenthood, however—such as feelings of stress, worry, and anxiety—have been typically argued to outweigh the positive aspects of parenthood (Bird, 1997; Fawcett, 1988; McLanahan & Adams, 1987). As such, parents historically tend to report lower levels of overall happiness, as well as lower levels of subjective well-being on other indicators, than non-parents (Augustine & Brantley, 2023; Hansen, 2012; Radó, 2020). Yet several recent studies have found that the parental well-being gap had

been narrowing prior to COVID-19 (Herbst & Ifcher, 2016; Nomaguchi & Milkie, 2020), and that parent levels of happiness are no longer different from non-parent levels (Negraia & Augustine, 2020). As alluded to above, Nomaguchi and Milkie (2023) found that, from 1996 to 2018, mothers with younger children reported less depression than non-mothers (although mothers of older children still reported less happiness than non-mothers). Importantly, such studies were based on data collected prior to the pandemic. As a rich body of research has demonstrated, the COVID-19 pandemic presented several acute challenges for parents (Patrick et al., 2020; Feinberg et al., 2022; Yildirim et al., 2022), which potentially reduced parents' subjective well-being and reversed the positive trend in the parental well-being gap. Whether the shape of the parental well-being gap following the pandemic changed remains unclear.

Indeed, the salience of this question is further underscored by theoretical perspectives on parental well-being, which posit an array of costs and benefits that combine to shape parental well-being (Nelson et al., 2014a; Nomaguchi & Milkie, 2003; Umberson & Gove, 1989). These costs of parenting are usually indicated to include greater worry, anxiety, and financial strain than non-parenting (Umberson & Gove, 1989). The benefits often point to companionship, a sense of satisfaction from raising children and overcoming the associated challenges, and joy at watching children grow and develop (Pollmann-Schult, 2014). The balance of these costs and benefits in addition to their cumulative contribution to the size and shape of the parental well-being gap have been explored, often across population groups –for example, women versus men (Kerr et al., 2021; Nordenmark, 2021), or single versus married adults (Western et al., 2016). Research focused on subgroups of parent populations also suggests that single mothers

report lower levels of well-being than married mothers (Kalil et al., 2012), and that white mothers report lower subjective well-being than Black mothers (Augustine & Brantley, 2023). Yet as the theory reminds us, these costs and benefits of parenting can also vary across contexts – for example, whether adults are employed or non-employed (Negraia & Augustine, 2020). The COVID-19 pandemic is a unique context, in which parents navigated unprecedented family, education, and economic crises that exacerbated common parenting stressors. Thus, I consider the potential implications of this unique context, the COVID-19 pandemic, for the parental well-being gap.

*Negative parental well-being gap after the pandemic.* Extant research suggests that parents experienced increases in parental stress and depression (Patrick et al., 2020; Cameron et al., 2020) as a result of increased behavioral problems in their children, which arose as a result of school and childcare closures (Heggeness, 2021), restrictions in children's activities (WHO, 2022), reduced social contact with friends and family (Chan, 2021), and children's reduced opportunities for socialization (Ollivier et al., 2021). Both children's greater behavioral problems and parents' stress also served to reduce parents' subjective well-being by leading to deteriorations in the quality of parents' home life and declines in co-parenting quality (Feinberg et al., 2022). Furthermore, intensified concerns about children's well-being during the pandemic, given children's increased social isolation and reduced educational opportunities, increased parental anxiety (Yildirim et al., 2022). Lastly, many families suffered economic hardships due to limited work opportunities or job loss, which may have created disproportionate emotional and psychological strains among individuals responsible for minor children (Jianghong et al, 2022; Schieman et al., 2021; WHO, 2022).

By the same token, many non-parents gained unique opportunities during the pandemic to improve their work-life balance as unexpected extra time allowed them to engage in new experiences, be outdoors, and restore their personal relationships (Büssing et al., 2020; Grimes, 2022). In fact, research also finds that during the pandemic, non-parents experienced more personal time for silence and reflection, more positive changes in their general perceptions, and lowered perceived stressors (Büssing et al., 2020). Such factors could have also contributed to a rewidening of the parental well-being gap. At the same time, there is some indication that non-parents experienced worsened well-being more so than parents as a result of feelings of fear, loneliness, isolation, and increased usage of digital media (Büssing et al., 2020). The potential social benefits that parents experienced during the early pandemic period, such as time spent with children (Kerr et al., 2021; Pollmann-Schult, 2014), may have also offset the negative effects of the pandemic on parental well-being. As such, it is possible that the shape of the parental well-being gap did not change following the pandemic. Nonetheless, based on the preponderance of the extant research, I propose the following hypothesis:

H<sub>1</sub>: Parents will have lower levels of general happiness than non-parents after the pandemic, and the parental well-being gap will have reopened or widened since 2018.

#### *Variations in COVID-19 Experiences*

Consistent with the costs and benefits perspective, the parental well-being gap varies across contexts can further vary across social groups. In particular, the implications of the COVID-19 pandemic may have differentially shaped the well-being of different groups among both parents and non-parents (Nomaguchi & Milkie, 2020; Nomaguchi &

Milkie, 2023) along three key dimensions that affected how people experienced the pandemic—their gender, their education, and among parents, whether their children were minor children or adult children (Chan, 2021). I explore these three sources of variation in my analysis.

*Gender.* Mothers experienced the pandemic differently than fathers because of inequality in domestic labor, work-life balance obstacles, and financial challenges. First, during the pandemic, mothers' amount of leisure time decreased much more so than fathers', while mothers also took on more responsibility for unpaid domestic labor than fathers (Cameron et al., 2020; Ollivier et al., 2021; Xue & McMunn, 2021), particularly in caregiving. Both factors may have thus increased negative feelings and decreased subjective well-being for mothers more so than fathers (Kahneman et al., 2004). Second, among working parents, mothers were more likely than fathers to combine working with children, which may have reduced their feelings of well-being more so than fathers (Augustine & Prickett, 2022). Third, economic stressors during the pandemic may have shaped well-being in fathers and mothers differently. On one hand, mothers were more likely to leave the workforce than fathers to care for their kids who were home due to illness, school and childcare closures, or lack of childcare support (Heggeness et al., 2021). On the other hand, fathers more easily returned to the workforce during the economic recovery period of the pandemic (CRS, 2020a; Collins et al., 2020; Augustine & Prickett, 2022). Thus, mothers experienced greater challenges participating in the workplace than fathers, which may have exacerbated any reductions in their subjective well-being as well (Burki et al., 2020). These insights lead me to anticipate the following:



H<sub>2</sub>: Parents' lower levels of well-being compared to non-parents following the pandemic will be primarily observed among women (versus men).

*Education.* In addition to variation by gender, research suggests that financial worry during the pandemic was experienced differently across education groups. Specifically, individuals with higher education experienced fewer job changes and less financial worry (Moen et al., 2020; Dunatchik et al., 2021). Thus, an increase in the parental well-being gap may be most pronounced among lower educated segments of the population. At the same time, there is also evidence that parenting experiences differed across education groups during the pandemic, in which higher educated parents experienced greater behavioral problems among their children which may be associated with increased time at home; therefore, increased time observing their children's behaviors (Patrick et al., 2020; Spinelli et al., 2020; Yeasmin et al., 2020), which might exacerbate stress. Thus, it is possible that any widening of the parental well-being gap will be observed most prominently among higher educated groups. As such, in this case, I consider competing hypotheses. Specifically,

H<sub>3A</sub>: Parents' lower levels of well-being compared to non-parents following the pandemic will be primarily observed among higher educated groups.

H<sub>3B</sub>: Parents' lower levels of well-being compared to non-parents following the pandemic will be primarily observed among lower educated groups.

*Child age.* Lastly, I consider the significance of children's ages, given how the pandemic affected families with younger children more than families with older children. This is because families with younger children required more teaching help when schools closed, were affected more by childcare closures, struggled more in the transition to

online learning, and may have exhibited more behavioral problems than older children (Collins et al., 2020; Alon et al., 2020; Bateman & Ross, 2020). Indeed, there is some evidence to suggest that mothers' well-being during the pandemic was lower among those with younger children than older children (Cameron et al., 2020; Ollivier et al., 2021). Although I cannot account for the precise age of parents' children using the 2021 GSS, it is possible to distinguish among parents with minor household children and parents with adult children, who may have alternately served as an important source of support for parents during the pandemic (Brugiavini et al., 2022; Cui & Hong, 2021; Jiang & Fung, 2021); for example, by running errands and providing social interaction, thereby countering many of negative consequences of the pandemic for parents' well-being. Thus, I also explore the following hypothesis:

H4: Lower levels of parental well-being (vs. non-parents) following the pandemic will not be observed among parents with adult children.

### *Overview of Study*

In sum, this study aims to explore whether the historical parental well-being gap (i.e., parents' lower levels of subjective well-being compared to non-parents) reopened following the pandemic. This focus on subjective well-being provides a holistic assessment that reflects the ways that people's lives intertwine with social structures (i.e., work and marriage) (McLeod & Lively, 2006; Negraia & Augustine, 2020) following an unprecedented health event. In doing so, the present study builds on a rich literature that assesses parental well-being in terms of *happiness* (Evenson & Simon, 2005; Nomaguchi & Milkie, 2003; Negraia & Augustine, 2020), but also expands the focus to include two other global subjective assessments salient to structural changes that occurred during the

pandemic: *marital satisfaction* and *job satisfaction*. The results of this investigation will shed new light on the current shape of the parental well-being gap and expand knowledge of how the pandemic affected the well-being of different population groups.

## CHAPTER 2: METHOD

### *Data and Sample*

To test my hypotheses, I utilize the General Social Survey (GSS). The GSS is a repeated cross-sectional, nationally representative survey administered by the National Opinion Research Center (NORC) at the University of Chicago. This survey samples English-speaking non-institutionalized adults who live in the United States. NORC began collecting data for this survey in 1972 and continued annually until 1994 when data collection became biennial until the 2020 wave was delayed by COVID-19, thus, we have a 2021 wave. The GSS is a key source of data on trends in U.S. residents' attitudes, behaviors, and beliefs, and perhaps the most widely used data source on historical trends in parental well-being. The GSS also provides relevant demographic data. For this study, I draw on the two GSS surveys immediately prior to and immediately following the start of the COVID-19 pandemic – 2018 and 2021. My analytical sample was formed by pooling all men and women participating in these two waves of the GSS (women,  $n = 3,429$ ; men,  $n = 2,763$ ). Characteristics of this sample and cell sizes for the various focal subgroups appear in Table 2.1 and Table 2.2.

### *Measures*

*Dependent Variables.* Global subjective well-being is assessed three ways. First, self-rated *happiness* was assessed at each survey wave based on the question: “Taken all together, how would you say things are these days? Would you say that you are very

happy, pretty happy, or not too happy?” I reverse coded this variable, assigning responses of ‘very happy’ a value of 3, ‘pretty happy’ a value of 2, and ‘not very happy’ a value of 1. This allowed the highest numerical value of 3 to correspond with the highest level of happiness, or ‘very happy’.

Self-rated *job satisfaction* was assessed at each survey wave based on the question: “All in all, how satisfied would you say you are with your job?”, with responses as follows: 1 = ‘very satisfied’, 2 = ‘moderately satisfied’, 3 = ‘a little dissatisfied’, 4 = ‘very dissatisfied’. Responses were subsequently reverse coded so that higher values corresponded to higher levels of job satisfaction. Given the small number of responses of “very dissatisfied”, I further pooled the dissatisfied responses with the “a little dissatisfied” to create a 3-level measure, parallel with the general happiness and marital satisfaction measures. This final coding for job satisfaction is as follows: 1 = ‘dissatisfied’, 2 = ‘moderately satisfied’, 3 = ‘very satisfied’.

Lastly, self-rated *happiness of marriage* was assessed at each survey wave among married respondents based on the question: “Taken all things together, how would you describe your marriage? Would you say that your marriage is very happy, pretty happy, or not too happy?” As with the above measures, reverse coded happiness of marriage. Unfortunately, there were not enough respondents who reported ‘not too happy’ to allow for analysis of all three categories on this measure. As such, I combined ‘pretty happy’ and ‘not too happy’ into a lower marital happiness category and then compared this category to a higher level (‘very happy’) category.

*Independent Variables.* The first focal independent variable was *survey year*, which is a binary indicator for whether the respondent completed the survey in 2021

versus 2018. The second is a binary measure of parental status, which reflected whether the participant was a parent with all children aged under 18 or was a non-parent (i.e., reported never having had any children). I also created an additional binary parental status variable that distinguished between whether the respondent was a parent to an adult child (in which at least one child was over age 18) or was a non-parent (reported never having had any children). These measures were created by drawing on information about the oldest child age, which was derived from parents' reports of their current age, and the age at which they first had a child. Unfortunately, the 2021 GSS did not collect more detailed information about whether the parent had a coresident child, or the ages of their household children. Thus, I cannot create more finely graded measures that capture the specific ages of all parents' children. Non-parents were 28.71% of the 2018 sample and parents of minor children were 23.47% of the 2018 sample. The remaining 47.81% were parents of adult children. In 2021, non-parents comprised 29.56% of the sample, and parents of minor children were 17.28% of the 2021 sample. Parents of adult children were the remaining 53.16% of the sample.

*Covariates.* To account for factors that may confound the associations between parental status and happiness, I included several covariates collected at each survey wave. These factors included age (continuous), sex (which is also modeled as a moderator; *0 = male, 1 = female*), inflation adjusted family income (continuous), education (which is also modeled as a moderator; *0 = less than HS, 1 = HS/GED, 2 = Some college, 3 = BA or higher*), work status (dummy coded for *full-time, part-time, unemployed, and out of the labor market*), marital status (*1 = married, 2 = unmarried*), race (*0 = white, 1 = Black, 3 = other*), nativity (*0 = U.S. born, 1 = born outside of the U.S.*), and geographic

region (dummy coded for *Midwest, South, West, and Northeast*). Descriptive statistics for my sample covariates are available in Table 2.

### *Analysis Plan*

My analysis plan involves three steps. For the first step in the analyses, I estimated bivariate associations (means and percentages) among the two focal parental status groups and the three measures of subjective well-being and tested whether the well-being measures significantly varied between parents of minor children and non-parents using one-way ANOVA and t-tests. These bivariate analyses are estimated separately by survey year and presented graphically to provide an initial understanding of how the parental well-being of parents of minor children compared to non-parents in 2021 versus 2018.

The second step in the analysis uses multivariate regression techniques. Here, I draw on the pooled sample and regress the binary measures for parental status (parent of minor children and non-parent, with non-parent as the reference category) and survey year on the well-being measures, controlling for the covariates mentioned above. Model 1 estimates the main effect of parental status and survey year. I estimate the three measures of subjective well-being separately. For models of marital satisfaction, I restrict the analyses to a subsample of married respondents. For models predicting job satisfaction, I restrict the analyses to a subsample of respondents employed either part-time or full-time. To simplify the discussion of the results, I refer to the three levels for each dependent variable as low, medium, and high.

Building on this base model, Model 2 adds an interaction between survey year and parental status to compare the well-being gap in 2018 to that in 2021. Model 3

assessed whether these patterns for happiness were more pronounced among women by adding a three-way interaction between gender x year x parental status. Due to limited cell sizes, I was unable to estimate three-way interactions when predicting job satisfaction and marital happiness. Model 4 explored whether the patterns for happiness observed in Model 2 were the same for higher and lower education groups ('some college and lower' = lower, 'B.A. or higher' = higher) by adding a three-way interaction between education level x year x parental status (again, limited cell sizes precluded extending this analysis to job satisfaction and marital happiness). As a final step, I repeat Models 1 and 2, comparing the well-being of parents of adult children to non-parents and consider whether these patterns of results are different than those comparing parents of minor children to non-parents. Note that these are not formal tests, and are only investigations of patterns within the data.

For Models 1 and 2, I employed three modeling approaches: ordered logistic regression, generalized logistic regression, and multinomial logistic regression. I do so to assess the robustness of the results across model specifications. Generally speaking, ordered logistic regression is the most interpretable and familiar to readers, but it imposes the proportional odds assumption, in which coefficient sizes are assumed to be the same across levels, that is often violated (Williams, 2016). The latter two methods do not impose the same assumption, as they relax the proportional odds assumption to provide more reliable coefficients for interpretation. To aid in the interpretation of the two-way and three-way interactions, I calculate Average Marginal Effects (AME), which estimate the probability of experiencing a certain outcome under varying conditions—in this case, being a non-parent or a parent of minor children—holding all other covariates at their



means. Doing so allows me to estimate various pair-wise tests to ascertain whether there are significant differences in well-being between parents of minor children and non-parents within each survey year. Using this approach, I can also look within survey year and gender or education level to examine the shape and size of the well-being gap. To simplify the presentation of the results, models incorporating the three-way interactions focus on the results using generalized logistic regression.

Data analysis is conducted using Stata v.17. All estimates from 2018 and 2021 used the WTSSCOMP survey weight and were adjusted for the complex sampling design. The *suppop* feature is employed to make restrictions to the analytical sample while maintaining its representativeness relative to the U.S. population. To account for missing data, I use listwise deletion techniques, given that there were only small amounts of missing data (Allison, 2001). Missingness is less than 2% on all variables apart from age (5.33%) and income (11.27%). Missingness for the parent group variable by survey year is 1.66% in 2018 and 2.41% in 2021. The parent group variable has a missingness rate of 2.13%. Overall, data is missing on 17% of the sample. Analyses of missing data indicate that it was not clustered among different parental status groups, or other key variables of interest; particularly year, gender, or education. Appendix Table A.1 shows the percent and frequency of missing for the analytic sample. Sample sizes for the multivariate results are also noted in the tables.

Table 2.1 Frequencies for Key Population Subgroups by Year

	Year	
	2018	2021
Full Sample		
Women with only minor children	332	402
Men with only minor children	210	275
Women with adult children	640	1,184
Men with adult children	464	853
Women with no children	298	573
Men with no children	365	569
Married Sample		
Women with only minor children	186	240
Men with only minor children	126	198
Women with adult children	257	588
Men with adult children	259	588
Women with no children	71	143
Men with no children	74	157
Employed sample		
Women with only minor children	232	253
Men with only minor children	183	244
Women with adult children	312	513
Men with adult children	243	406
Women with no children	190	360
Men with no children	258	360

*Notes:* Samples do not make age restrictions. Employed sample includes part-time and full-time employed.

Table 2.2 Characteristics of Sample by Survey Year (Means and Frequencies)

	2018 Sample	2021 Sample
Year	36.80%	63.20%
Parent Status		
Non-parent	28.71%	29.56%
Parent of child under the age 18	23.47%	17.28%
Parent of child over the age 18	47.81%	53.16%
Age	48.97, (.3733)	52.17, (.2833)
Sex		
Male	44.80%	44.06%
Female	55.20%	55.94%
Family Income	33749.7, (671.607)	40053.31, (677.742)
Education		
Less than HS	11.16%	6.14%
HS/GED	50.17%	39.84%
Some college	8.35%	9.23%
BA or higher	30.32%	44.80%
Work status		
Full-time	48.34%	44.14%
Part-time	13.30%	11.66%
Unemployed	36.32%	41.28%
Other	2.05%	2.93%
Marital Status		
Unmarried	57.46%	50.31%
Married	42.54%	46.69%
Race		
White	72.10%	78.18%
Black	16.40%	11.64%
Other	11.50%	10.18%
Nativity		
Born in U.S.	87.13%	88.79%
Born outside U.S.	12.87%	11.21%
Region		
Midwest	21.85%	24.55%
South	40.59%	37.10%
West	22.40%	23.04%
Northeast	15.16%	15.30%

Notes: 2018 N = 2,346. 2021 N = 4,024. Employed sample includes part-time and full-time employed.

## CHAPTER 3: RESULTS

### *Sample Statistics*

Prior to analysis, I examined the frequencies for the key population subgroups by year to ensure there were generally sufficient cell sizes. For women with only minor children, there are more represented in the 2021 sample than the 2018 sample ( $n = 332$  in 2018 and  $n = 402$  in 2021). For men with only minor children, they are also more represented in the 2021 sample compared to the 2018 sample ( $n = 210$  in 2018 and  $n = 275$  in 2021). There is also an increase in the sample size of female and male non-parents from 2018 to 2021 (female non-parents, 2018:  $n = 298$  and 2021:  $n = 573$ ; male non-parents, 2018:  $n = 365$  and 2021:  $n = 569$ ). These figures appear in Table 2.1. Overall, these findings demonstrate sufficient cells sizes, but I acknowledge that the cell sizes among married female and male non-parents are fairly small ( $n = 71$  and  $n = 74$ , respectively). As mentioned in the methods section, it was also necessary to combine certain categories of the well-being measures due to limited cell sizes.

In Table 2.2, I provide weighted estimates of the characteristics of each sample by survey year. In both 2018 and 2021, there are more parents of adult children than parents of only minor children represented. Females comprise more than 50% of the sample in both survey waves (55.20% in 2018, 55.94% in 2021). For inflation adjusted family income, the mean income for the 2018 sample is \$33,749.70 and the mean income for the 2021 sample is \$40,053.31. In 2018, the majority of the sample is at the “HS/GED” education level (50.17%), while the 2021 sample has a greater percentage of respondents

with a “BA or Higher” education level (44.80%). Unsurprisingly, there is a greater number of unemployed respondents in 2021 (41.28%) than in 2018 (36.32%). The married population in both survey waves is over 40%. For the 2018 sample, the distribution is 72.10% White, 16.40% Black, and 11.50% Other. In the 2021 sample, the distribution is 78.18% White, 11.64% Black, and 10.18% Other. The percentage of foreign-born respondents is similar between the two survey waves (87.13% in 2018 and 88.79% in 2021). The percentages associated with each region in 2018 are as follows: 21.85% from the Midwest, 40.59% from the South, 22.40% from the West, 15.16% from the Northeast. The percentages associated with each region in 2021 are as follows: 24.55% from the Midwest, 37.10% from the South, 23.04% from the West, and 15.30% from the Northeast.

#### *Bivariate Analyses of Well-Being by Parental Status*

Next, means and frequencies of key dependent variables for each parent group were estimated for each survey wave (2018 and 2021). These results are provided in Table 3.1. They are presented graphically in Figures 3.1, 3.2, and 3.3. Keep in mind that the respondents in 2018 are not the same in 2021. The GSS did not survey the same exact group of individuals in both years. For general happiness, the percentage of parents of minor children reporting being very happy decreased to a slightly larger extent (12.66% change) than it did for non-parents (11.5 difference and 11.62 difference, respectively). The “not too happy” proportions increased while the mean “very happy” proportion lowered from 2018 to 2021. At the same time, parents of minor children experienced an increase in being “not too happy” in 2021 compared to 2018 (9.45 difference). Non-parents also experienced an increase in being not too happy (14.43%). Thus, these

bivariate estimates suggest a narrowing of the parental well-being gap on the measure of general happiness for parents of minor children, which is driven largely by a decreased share of non-parents reporting the lowest levels of happiness.

In terms of job satisfaction, the results suggest that “very satisfied” decreased for non-parents and parents of minor children from 2018 to 2021. The larger decrease occurred among the non-parent subgroup (13.4%), while it decreased substantially less among parents of minor children (4.72 difference). The “not too happy” proportions increased a similar amount for non-parents and parents of minor children (3.17 difference and 2.68 difference, respectively). These bivariate estimates indicate distinctions in workplace experiences that may not be associated with parental well-being as non-parents experienced the largest decrease in job satisfaction.

For the measure of marital satisfaction (see Figure 3.3), the percentage of each group that was “very happy” decreased from 2018 to 2021 for both non-parents and parents of minor children (1.49 difference and 4.12 difference, respectively). Additionally, both population subgroups saw an increase in being “not too happy” with their marriages (2.25% change for non-parents, 3.1% change for parents of minor children).

### *Multivariate Analyses Predicting the Parental Well-Being Gap*

*Happiness.* The results of Model 1 predicting happiness indicate parents of minor children reported higher levels of happiness than non-parents in 2021 (see Table 3.1 for results). This overall pattern is consistent across the three modeling approaches, with some notable differences. In the Ordered Logistic regression models, I find that parents have higher odds of experiencing higher levels of happiness compared to non-parents

(OR = 1.32, SE = 1.45,  $p < .05$ ). In the Generalized Logistic Regression, I find that parents have a higher odds of reporting high levels of happiness versus medium levels of happiness compared to non-parents (OR=1.51, SE=.208,  $p < .01$ ), but there is no difference in the odds of reporting medium levels of happiness versus low levels by parental status (OR=1.18, SE=.176). In the multinomial logistic regression models, I find that parents have higher odds of reporting having high levels of happiness versus low levels compared to non-parents (OR=1.61, SE=.292,  $p < .01$ ). Across all three models, I find a significant main effect for year, suggesting that average levels of happiness decreased for both parents of minor children and non-parents in 2021 compared to 2018 (OR ranged from .258 to .446). Coefficients for the covariates of Model 1 based on the GLM model can be seen in Appendix Table A.2 (along with those for Model 1 of the GLM models when predicting job satisfaction and marital happiness).

Model 2 added the interactions between year and parental status. For all three models, the interaction terms were nonsignificant (OR ranged from 1.10 to 1.43). Estimating average marginal effects (AME's), however, allows us to estimate the parental well-being gap (i.e., difference in well-being for parents compared to non-parents) at all levels of well-being (low, medium, and high) within each survey year. These results are in Table 3.3. The AME's suggest that in 2018, there was no parental well-being gap. Yet in 2021, parents had a significantly higher probability of reporting high levels of happiness. This estimate ranged from 5% (in the ordered logistic regression models) to 8% (in the other two models).

*Job Satisfaction.* Turning to job satisfaction, I find a similar pattern to the results from general happiness. Specifically, parents of minors reported higher levels of

satisfaction with their jobs than non-parents. In the ordered logistic regression models, I find that parents had a 68% odds of reporting higher levels of job satisfaction than non-parents (OR=1.68, SE=.189,  $p<.001$ ). In the generalized logistic regression, I find that parents (vs non-parents) are 83% more likely to report medium levels of job satisfaction compared to low levels (OR=1.83, SE=.302,  $p<.001$ ) and are 63% more likely to report high levels than medium levels (OR=1.63, SE=.196,  $p<.001$ ). In the multinomial logistic regression models, the odds of parents versus non-parents reporting high levels of job satisfaction versus low levels was 128% (OR=2.28, SE=.418,  $p<.001$ ). There was a highly significant year effect across all three models, again, indicating lower levels of job satisfaction in 2021 than 2018 (OR ranged from .515 to .734).

In Model 2, I add the interaction between parental status and year. This interaction was nonsignificant across the three modeling approaches (OR ranged from 1.34 to 1.48). To further probe these interactions, I return to the AMEs in Table 3.3. These estimates reveal that parents of minor children had lower probabilities of experiencing low levels of job satisfaction in 2018 compared to non-parents (probability ranged from -3.6% to -5.3%), and higher probabilities of reporting high levels of job satisfaction (7.4% to 8.3%), although some of these latter differences only reached marginal significance. In 2021, this trend was even more pronounced. For example, the GLM models suggest that parents had a 9% decreased probability of reporting lower levels of job satisfaction in 2021 compared to non-parents, and a 14.5% higher probability of reporting high levels of job satisfaction compared to non-parents.

*Marital Satisfaction.* As noted above, due to limited cell sizes and problems in estimation, I had to combine the medium and low categories of marital satisfaction. Thus,



for these models, I rely on logistic regression. In Model 1, I find that parents of minor children had 34% lower odds of reporting high (versus medium) levels of marital satisfaction. There was no significant coefficient for year. To interpret the results of Model 2, I turn to Table 3.3. I find that in 2018, parents of minor children had a 9% lower probability of reporting higher marital satisfaction than non-parents. In 2021, parents had a 10.3% ( $p < .05$ ) lower probability of reporting high marital satisfaction than non-parents.

Average levels of happiness decreased in 2021 compared to 2018, but parents of minor children were more likely than non-parents to report high levels of happiness. Likewise, average job satisfaction decreased between 2018 and 2021, but parents of minor children reported higher levels of satisfaction with their jobs than non-parents. Further, parents of minor children were less likely to report high marital satisfaction than non-parents.

#### *Further Variation by Gender and Education*

In Model 3, I extended Model 2 by adding the three-way interactions of gender x year x parental status. In Model 4, I estimated variation by higher and lower levels of education by adding the three-way interaction for education level x year x parental status. These results are presented in Table 3.4 (for gender) and Table 3.6 (for education). AME's appear in Table 3.5 (gender) and education (Table 3.7). To simplify the presentation of the results, for these models, I focus on using generalized logistic regression, given its advantages compared to ordered logistic regression. Recall that I only explore variation by gender and education when predicting general happiness.

The results of Model 3 suggest that parents of minor children's increased probability of reporting high levels of happiness in 2021 was observed among both men (9.1%) and women (7.1%). Auxiliary analyses further suggest that gender differences were not significantly different among this sample. For Model 4, a significant result for the three-way interaction between education level x year x parental suggests the possibility that the happiness pattern observed in Model 2 only existed among certain education groups (OR=.370, SE=.174,  $p<.05$ ). Indeed, the AMEs' presented in Table 3.7 revealed that parents' higher probability of reporting high levels of happiness (vs. non-parents) was only observed among lower education parents (AME = .126,  $p<.001$ ).

#### *Parents with Adult Children*

As a final step in the analysis, I repeat Models 1-2 predicting the three indicators of well-being by the binary measure of parental status in which parents included respondents with an adult children (the non-parent group remained the same). These results appear in Table 3.8 (odds ratios) and Table 3.9 (AME's). Note, bivariate estimates of well-being (means and percentages) for this parent group appear in Appendix Tables A.3, A.2, and A.3. Overall, these results do not reveal the same pattern of results found in the models focusing on parents of minor children for general happiness or marital satisfaction—in short, there was no observed higher well-being among parents of adult children compared to non-parents. The results for job satisfaction, however, were similar. As a post-analysis step, I reestimated Model 1 and 2 predicting happiness and marital satisfaction using this three-category dummy measure for parental status (non-parents, parents of minor children, and parents of adult children), and the results were the same as those using the binary measure.

Table 3.1 Means/Frequencies of Key Dependent Variables by Year and Survey Wave

	2018		2021	
	Non-parent	Minor children	Non-parent	Minor children
General happiness				
Not too happy	15.57%	8.99% <sup>a</sup>	30.1% <sup>b</sup>	18.44% <sup>a</sup>
Pretty happy	60.97%	54.53%	58.06%	57.74%
Very happy	23.46%	36.48% <sup>a</sup>	11.84% <sup>b</sup>	23.82% <sup>a</sup>
Job satisfaction				
Dissatisfied	18.62%	9.64% <sup>a</sup>	23.78%	13.66% <sup>a</sup>
Moderately satisfied	40.76%	42.84%	49%	43.55%
Very satisfied	40.62%	47.52%	27.22%	42.79% <sup>a</sup>
Marital happiness				
Medium	34.64%	39.79%	36.13%	43.91%
High	65.36%	60.21%	63.87%	56.09%

Notes: Job satisfaction estimated among subsample of working (2018  $N = 1,146$ , 2021  $N = 2,245$ ). Marital happiness estimated among subsample of married (2018  $N = 2,346$ , 2021  $N = 4,023$ ). <sup>a</sup> indicates significant differences in comparison to non-parent group. All models weighted and adjusted for complex survey design.

Table 3.2 Odds Ratios of Models Predicting Well-Being by Parent Status and Year for Parents of Minor Children

	<i>OR (SE)</i>					
	General Happiness		Job Satisfaction		Marital Satisfaction	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<b>1. Ordered logistic/Logistic</b>						
Parents minors (vs. non-parent)	1.32*	1.18	1.68***	1.41*	.657*	.678
	(.145)		(.189)	(.210)	(.110)	(.171)
2021 (vs. 2018)	.446***	.410***	.717***	.624***	.891	.923
	(.045)		(.074)	(.091)	(.139)	(.251)
Parent minors x 2021	---	1.21	---	1.34	---	.949
				(.260)		(.306)
<b>2. Generalized logistic</b>						
<i>Medium versus low</i>						
Parents minors (vs. non-parent)	1.18	1.12	1.83***	1.62*	---	---
	(.176)	(.259)	(.302)	(.332)		
2021 (vs. 2018)	.432***	.418***	.734*	.673*	---	---
	(.059)	(.070)	(.107)	(.125)		
Parent minors x 2021	---	1.10	---	1.23	---	---
		(.298)		(.340)		
<i>High versus medium</i>						
Parents minors (vs. non-parent)	1.51**	1.28	1.63***	1.35†	---	---
	(.208)	(.237)	(.196)	(.219)		
2021 (vs. 2018)	.457***	.385***	.710**	.599**	---	---
	(.058)	(.067)	(.079)	(.099)		
Parent minors x 2021	---	1.39	---	1.39	---	---
		(.320)		(.305)		
<b>3. Multinomial logistic</b>						
<i>High versus low</i>						
Parents minors (vs. non-parent)	1.61**	1.32	2.28***	1.81**	---	---
	(.292)	(.331)	(.418)	(.407)		
2021 (2018)	.258***	.218***	.615**	.515**	---	---
	(.431)	(.047)	(.100)	(.109)		
Parent minors x 2021	---	1.43	---	1.48	---	---
		(.435)		(.444)		

Notes: Ordered logistic was used in tests for general happiness and job satisfaction. Bivariate logistic was used for marital satisfaction. For general happiness, low = not too happy, medium = pretty happy, high = very happy, sample n = 6,380. For job satisfaction, low = dissatisfied, medium = moderately satisfied, high = very satisfied, sample n = 3,691. For marital satisfaction, low = medium happiness, high = very happy, sample n = 2,997. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table 3.3. Average Marginal Effects (AMEs) for Non-Parents and Parents

	General Happiness		Job Satisfaction		Marital Satisfaction	
	Low	High	Low	High	Medium	High
<b>1. Ordered logistic/Logistic</b>						
Parental wellbeing gap 2018	-.017	.033	-.036*	.083*	---	-.091
Parental wellbeing gap 2021	-.056**	.049*	-.083***	.145***	---	-.103*
<b>2. Generalized logistic</b>						
Parental wellbeing gap 2018	-.012	.051	-.053*	.072†	---	---
Parental wellbeing gap 2021	-.031	.082***	-.091***	.145***	---	---
<b>3. Multinomial logistic</b>						
Parental wellbeing gap 2018	-.009	.056	-.053*	.074†	---	---
Parental wellbeing gap 2021	-.031	.081***	-.096***	.146***	---	---

Notes: Models control for sex, age, income, education, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table 3.4 GLM Regression Model Odds Ratios of Three-Way Interactions for Gender Predicting Well-Being

	OR (SE)
	General Happiness
	Model 3
<i>Medium versus low</i>	
Main effects	
Parent minors (vs. non-parent)	1.39 (.477)
2021 (vs. 2018)	.371*** (.086)
Gender	.982 (.302)
Two-way terms	
Parent minors x 2021	.863 (.356)
Gender x 2021	1.33 (.492)
Parent minors x sex	.746 (.317)
Three-way interaction term	
Parent minors x year x sex	1.32 (.720)
<i>High versus medium</i>	
Main effects	
Parent minors (vs. non-parent)	1.66† (.430)
2021 (vs. 2018)	.424*** (.100)
Gender	1.42 (.356)
Two-way terms	
Parent minors x 2021	1.17 (.380)
Gender x 2021	.818 (.280)
Parent minors x sex	.613 (.212)
Three-way interaction term	
Parent minors x year x gender	1.39 (.647)

Notes: \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table 3.5 Average Marginal Effects (AMEs) by Gender and Year Predicting Well-Being Gap

	General Happiness	
	Low	High
<b>Male 2018</b>		
Parental wellbeing gap	-.031	.101†
<b>Male 2021</b>		
Parental wellbeing gap	-.031	.091**
<b>Female 2018</b>		
Parental wellbeing gap	-.004	.003
<b>Female 2021</b>		
Parental wellbeing gap	-.025	.071*

Notes: Models control for age, income, education, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \*  $p < .05$ , † $p < .10$ .

Table 3.6 GLM Regression Model Odds Ratios of Three-Way Interactions for Education Predicting Well-Being

	OR (SE)
	General Happiness
	Model 4
<i>Medium versus low</i>	
Main effects	
Parent minors (vs. non-parent)	1.01 (.266)
2021 (vs. 2018)	.453*** (.099)
Education (vs. some college or lower)	.977 (.292)
Two-way terms	
Parent minors x 2021	1.01 (.337)
Education x 2021	.791 (.279)
Parent minors x education	1.50 (.735)
Three-way interaction term	
Parent minors x year x education	1.12 (.657)
<i>High versus medium</i>	
Main effects	
Parent minors (vs. non-parent)	1.22 (.299)
2021 (vs. 2018)	.290*** (.077)
Education (vs. some college or lower)	1.31 (.319)
Two-way terms	
Parent minors x 2021	2.19* (.741)
Education x 2021	1.72 (.563)
Parent minors x education	1.10 (.383)
Three-way interaction term	
Parent minors x year x education	.370* (.174)

Notes: \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .



Table 3.7 Average Marginal Effects (AMEs) by Education and Year Predicting Well-Being Gap

	General Happiness	
	Low	High
<b>High education 2018</b>		
Parental wellbeing gap	-.038	.063
<b>High education 2021</b>		
Parental wellbeing gap	-.088*	.013
<b>Low education 2018</b>		
Parental wellbeing gap	-.001	.039
<b>Low education 2021</b>		
Parental wellbeing gap	-.004	.126***

Notes: Models control for sex, age, income, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table 3.8 Odds Ratios of Models Predicting Well-Being by Parent Status and Year for Parents of Adult Children

	General Happiness		Job Satisfaction		Marital Satisfaction	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<b>1. Ordered logistic</b>						
Parents adults (vs. non-parent)	1.08 (.111)	.952 (.139)	1.60*** (.186)	1.37 (.227)	1.11 (.191)	1.23 (.339)
2021 (vs. 2018)	.485*** (.035)	.429*** (.054)	.705*** (.066)	.616*** (.083)	.807 (.095)	.923 (.245)
Parent adults x 2021	---	1.22 (.190)	---	1.28 (.247)	---	.845 (.254)
<b>2. Generalized logistic</b>						
<i>Low to medium</i>						
Parent adults (vs. non-parent)	.915 (.120)	.791 (.167)	1.39 (.253)	1.05 (.275)	---	---
2021 (vs. 2018)	.473*** (.051)	.418*** (.070)	.821 (.109)	.668* (.123)	---	---
Parent adults x 2021	---	1.24 (.273)	---	1.55 (.448)	---	---
<i>Medium to high</i>						
Parent adults (vs. non-parent)	1.26 (.172)	1.04 (.188)	1.69*** (.210)	1.43* (.251)	---	---
2021 (vs. 2018)	.492*** (.042)	.383*** (.068)	.660*** (.068)	.567*** (.094)	---	---
Parent adults x 2021	---	1.44 (.301)	---	1.31 (.280)	---	---
<b>3. Multinomial logistic</b>						
<i>Low versus high</i>						
Parent adults (vs. non-parent)	1.14 (.192)	.823 (.203)	1.81*** (.336)	1.24 (.325)	---	---
2021 (2018)	.308*** (.039)	.219*** (.047)	.670** (.096)	.492*** (.102)	---	---
Parent adults x 2021	---	1.70* (.452)	---	1.86* (.573)	---	---

Notes: For general happiness, low = not too happy, medium = pretty happy, high = very happy, sample n = 6,380. For job satisfaction, low = dissatisfied, medium = moderately satisfied, high = very satisfied, sample n = 3,691. For marital satisfaction, low = medium happiness, high = very happy, sample n = 2,997. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table 3.9 Average Marginal Effects (AMEs) for Non-Parents and Parents of Adult Children

	General Happiness		Job Satisfaction		Marital Satisfaction	
	Low	High	Low	High	Medium	High
<b>1. Ordered logistic/Logistic</b>						
Parental wellbeing gap 2018	.006	-.010	-.037	.075	---	.046
Parental wellbeing gap 2021	-.026	.022	-.083***	.127***	---	.009
<b>2. Generalized logistic</b>						
Parental wellbeing gap 2018	.026	.007	-.006	.085*	---	---
Parental wellbeing gap 2021	.004	.055*	-.070*	.140***	---	---
<b>3. Multinomial logistic</b>						
Parental wellbeing gap 2018	.029	.010	-.002	.086*	---	---
Parental wellbeing gap 2021	-.002	.054*	-.075*	.142***	---	---

Notes: Models control for sex, age, income, education, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

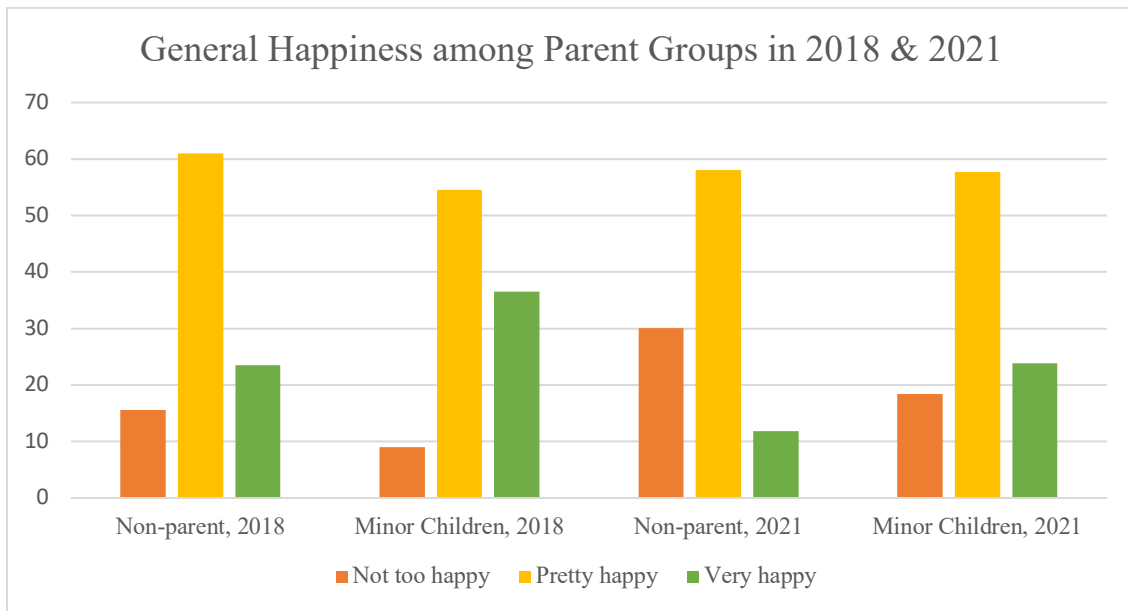


Figure 3.1 General Happiness among Parent Groups in 2018 and 2021

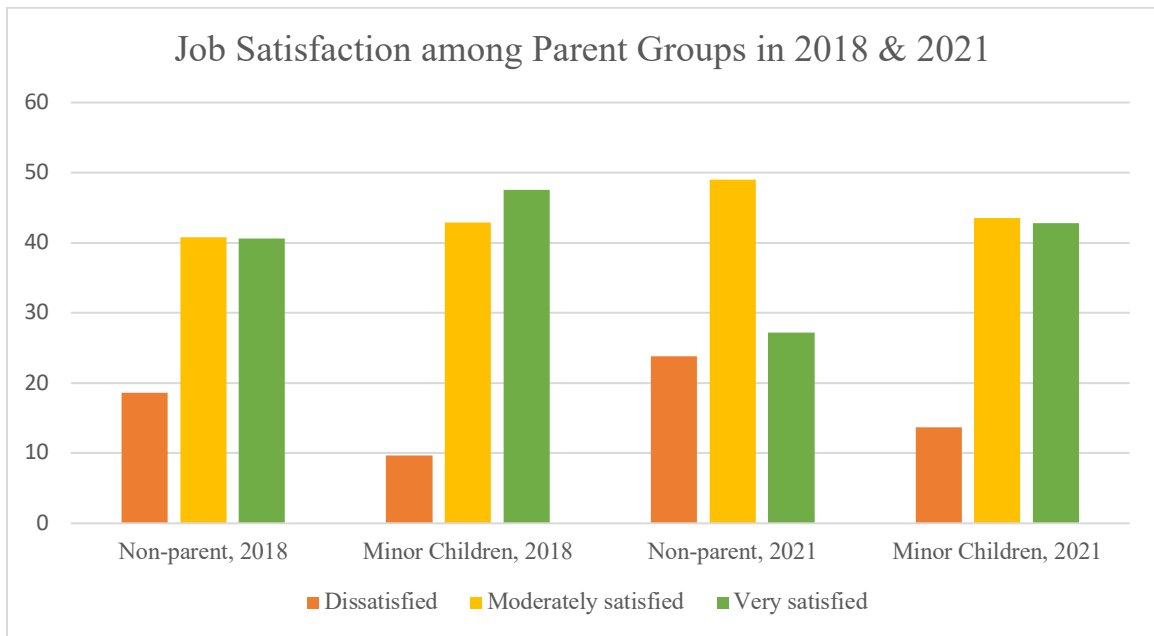


Figure 3.2 Job Satisfaction among Parent Groups in 2018 and 2021

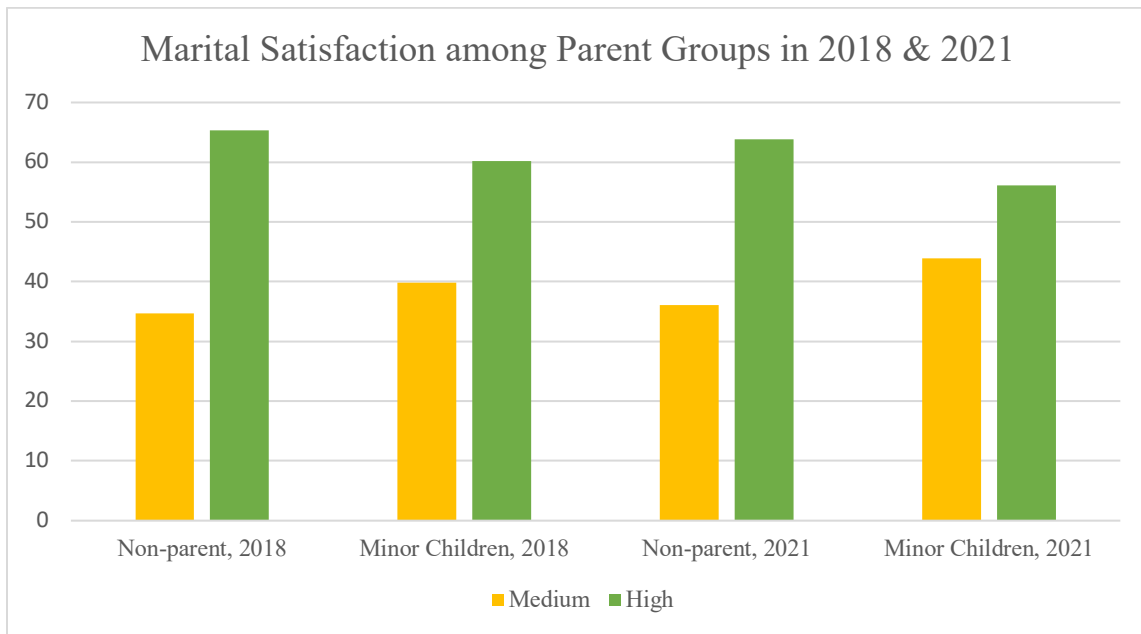


Figure 3.3 Marital Satisfaction among Parent Groups in 2018 and 2021

## CHAPTER 4: DISCUSSION

This study explored the parental well-being gap in the context of the COVID-19 pandemic. While, historically, parents often reported lower levels of subjective well-being on average compared to non-parents, evidence suggested that the parental well-being gap had narrowed or closed all together (Nomaguchi & Milkie, 2023). A recent unprecedented health event – the COVID-19 pandemic – raises questions about whether the parental well-being gap has reemerged or widened. This study begins to answer this question, drawing on a seminal source of data on the parental well-being gap, the GSS. At the same time, it extends much prior scholarship by considering an array of subjective well-being outcomes—happiness, job satisfaction, and marital satisfaction—and variation in the well-being gap in these outcomes across social groups differentially affected by the pandemic: women versus men, higher versus less educated adults, and those with minor versus adult children. However, the comparison between parents of minor children and parents of adult children was not performed directly. Though, with comparisons among social groups, this study leverages insights from the theories on parental well-being and its ‘costs and benefits’ to illuminate the significance of a pivotal social context that may have altered the balance of these costs and benefits across different parental status groups, and at the intersection of parental status and gender, education, and child age.

### *Summary of findings*

Based on my analyses, I find several novel and unexpected patterns of results. First, while the parental well-being gap had indeed closed across all three outcomes in

2021, I find that for two measures—happiness and job satisfaction—parents were happier and more satisfied with their jobs than their non-parent counterparts in 2021. What explains these unanticipated patterns of results? One possibility is that, despite the stress associated with school closures and remote learning, parents enjoyed the increased proximity to their children. Indeed, prior research suggests that the parental well-being gap in reported momentary happiness reverses when parents are with children (Negraia & Augustine, 2020). It is possible that having children at home provided some parents with comfort during a difficult global event. For work satisfaction, it is possible that remote or reduced work schedules allowed parents to alleviate certain work-family conflicts, and avoid workplace stressors, which often decrease job satisfaction (Büssing et al., 2020; Grimes, 2022). Alternatively, the significance of parents' roles as caretakers increasing during the global pandemic may also explain increases in satisfaction related to purpose-giving and family-supporting roles such as parents' work roles (Kerr et al., 2021; Negraia & Augustine, 2020; Pollmann-Schult, 2014). Additionally, children provide meaning when prospects of finding meaning through paid work are limited (Edin & Lein, 1997). This finding is consistent with other research that finds reduced work-life conflict for many during the pandemic (Schieman et al., 2021).

At the same time, I did observe a parental well-being gap in marital satisfaction which grew from 2018 to 2021. These results, which align with my expectations, may be due to deteriorations in coparenting quality and conflict resolution between partners just in the first few months of the COVID-19 pandemic (Feinberg et al., 2022). For married non-parents, it is possible that quality time with their partners had a positive impact on marital satisfaction.



Taking my analyses one step further, while I found that the patterns of results for happiness were generalizable to both mothers and fathers, it was lower educated parents who experienced a greater increase in happiness (relative to their non-parent counterparts), not higher educated parents. This result could be linked to income insecurity resulting from a lower education status, and the effects of income insecurity on parental well-being and parenting behaviors (Schneider et al., 2017; Western, 2016). Although the pandemic brought on financial insecurity, which in turn increased parenting stress (Jianghong, 2022), it also provided low-education parents with benefits that many higher educated parents did not receive. For example, The American Rescue Plan Act of 2021 provided individuals with Economic Impact Payments that were intended to cover bills and necessities for those whose jobs closed without remote work as a result of the pandemic. These payments included additional amounts for each qualifying dependent (U.S. Department of the Treasury, 2020). The American Rescue Plan also provided a monthly Child Tax Credit in which families received additional payments for each child under age 17 (The White House Administration, 2021). Further, there was a federal moratorium on evictions that protected renters from being evicted for nonpayment of rent for up to two months (National Housing Law Project, 2021). These benefits potentially reduced financial stress and increased the time spent with children for parents of lower education statuses, who work more precarious jobs.

Workplace arrangements were different for parents of higher education levels because their jobs provided remote work opportunities, which presented new changes and challenges to work-life balance for higher educated parents (e.g., working while providing childcare) (Grimes, 2022; Jianghong, 2022; Yeasmin et al., 2020). Given

reduced access to services, higher educated parents may have also experienced a sharper rise in domestic responsibilities (Blundell et al., 2020; Yeasmin et al., 2020).

### *Limitations and Future Directions*

Several limitations must be noted. First, scholars continue to debate the validity and reliability of self-assessed generalized measures of happiness, including the general happiness measure from the GSS. While some argue a preference for a more nuanced scale of happiness (Lyubomirsky & Lepper, 1997), others argue in support of measures that capture momentary measures of well-being across different activities (Negraia & Augustine, 2020). As such, future research should replicate this current study using an alternate measure of happiness. Nonetheless, the use of the GSS measures allows for research on happiness that maintains continuity with past research using this data and measures.

Second, there were several cases in which cell sizes for variables were too small to allow me to follow my original data analysis plan. For example, there were not enough respondents in the lowest level of satisfaction on both job satisfaction and marital satisfaction to execute the intended modeling approaches. Further research should explore these questions using data that allow for sufficient cell sizes.

Third, it is likely that the patterns observed in this study are additionally differentiated when considering race, sexual identity, geographic region, nativity, income, and characteristics of parents' children (e.g., gender, number of children). Although exploring these factors is beyond the aim of the present study, such analyses are precluded by small sample sizes.

Next, this study focuses on parents who were coresidential and caring for minor children. As such, it lacked representation of the experiences of non-residential parents, such as fathers who are divorced or separated, stepparents, and social parents. Exploration of these underrepresented experiences would likewise require a representative data sample with a larger sample size. Finally, I could not account for the precise ages of parents' children. Thus, I could not differentiate the ages of the children of parents of all minor children, but I also could not determine whether parents with adult children had younger children as well.

### *Conclusion*

This study aimed to answer the timely question: how has the shape of the parental well-being gap changed as a result of the COVID-19 pandemic, which created unprecedented challenges for parents? My results challenge my main hypothesis, in which I expected the parental well-being gap to be larger in 2021 than 2018. These results generally suggest that parents also experienced certain positive aspects of the pandemic compared to non-parents, such as enjoyable time with their children, a greater reduction in workplace conflict, and unique access to a meaningful source of comfort and joy during a uniquely difficult historical moment. Thus, while the challenges associated with the pandemic, particularly for parents, are well-documented, this study highlights the importance of examining the ways that the pandemic created new opportunities that benefit parental well-being. Such knowledge can be critical to helping to maintain parents' historically high levels of well-being into the future. These findings also suggest, however, that scholarly attention to the well-being of non-parents may be warranted.

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## APPENDIX A: TABLES AND FIGURES

The purpose of this appendix is to provide all tables and figures in one place for convenient review and interpretation. This section includes tables and figures mentioned throughout the thesis as well as additional tables and figures that may be of interest.

Table A.1 Percentage and Frequency of Missing Data in Sample

Variable	Frequencies	Percent
Parent	136	2.13%
Sex	92	1.44%
Age	340	5.33%
Income	719	11.27%
Education	23	0.36%
Work Status	10	0.16%
Marital Status	11	0.17%
Race	54	0.85%
Nativity	57	0.90%
Region	0	0.00%
Year	0	0.00%
General Happiness	22	0.34%
Job Satisfaction <sup>a</sup>	66	1.79%
Marital Satisfaction <sup>b</sup>	20	0.67%

Notes: <sup>a</sup> Calculated based on sample of respondents with jobs (n = 3,691). <sup>b</sup> Calculated based on sample of respondents married (n = 2,997).

Table A.2 Coefficients for Covariates of GLM Models for Model 1

	<i>B (SE)</i>		
	Generalized Happiness	Job Satisfaction	Marital Satisfaction
Age	1.00* (.003)	1.01* (.005)	.974*** (.007)
Female (male)	1.13 (.112)	1.21* (.117)	.763 (.120)
Family Income	1.00** (0.00)	1.00*** (1.00)	.999 (2.00)
Education (less than HS)			
HS/GED	1.68* (.361)	1.30 (.322)	1.08 (.423)
Some college	1.75* (.431)	1.18 (.324)	1.12 (.479)
BA or higher	1.84** (.409)	1.08 (.271)	2.07 (.813)
Work status (full-time)			
Part-time	.657** (.102)	---	.976 (.238)
Unemployed	.784* (.095)	---	1.42 (.265)
Other	.347** (.142)	---	.495 (.312)
Married (unmarried)	2.23*** (.254)	1.24 (.147)	---
Race (White)			
Black	.935 (.138)	.796 (.131)	.601 (.167)
Other	1.30 (.236)	1.04 (.198)	1.02 (.247)
Non-native (native)	1.51** (.237)	.944 (.177)	1.01 (.214)
Region (mid-west)			
South	1.07 (.131)	1.23 (.150)	1.07 (.225)
West	.867 (.135)	1.02 (.150)	.780 (.176)
Northeast	.821 (.126)	1.15 (.189)	1.05 (.276)

Notes: Models control for sex, age, income, education, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

Table A.3 Means/Frequencies of Key Dependent Variables by Year and Survey Wave

	2018			2021		
	Non-parent	Minor children	Adult children	Non-parent	Minor children	Adult children
General happiness						
Not too happy	15.57%	8.99% <sup>a</sup>	13.07%	30.1% <sup>b</sup>	18.44% <sup>a</sup>	21.54% <sup>a</sup>
Pretty happy	60.97% <sup>b</sup>	54.53%	52.78% <sup>a</sup>	58.06%	57.74%	55.81%
Very happy	23.46% <sup>b</sup>	36.48% <sup>a</sup>	34.15% <sup>a</sup>	11.84% <sup>b</sup>	23.82% <sup>a</sup>	22.65% <sup>a</sup>
Job satisfaction						
Dissatisfied	18.62% <sup>b</sup>	9.64% <sup>a</sup>	12.79% <sup>a</sup>	23.78% <sup>b</sup>	13.66% <sup>a</sup>	12.12% <sup>a</sup>
Moderately satisfied	40.76% <sup>b</sup>	42.84% <sup>b</sup>	29.85% <sup>a</sup>	49% <sup>b</sup>	43.55% <sup>b</sup>	37.89% <sup>a</sup>
Very Satisfied	40.62% <sup>b</sup>	47.52% <sup>b</sup>	57.36% <sup>a</sup>	27.22% <sup>b</sup>	42.79% <sup>a b</sup>	49.99% <sup>a</sup>
Marital happiness						
Medium	34.64%	39.79%	33.18%	36.13%	43.91%	38.75%
High	65.36%	60.21%	66.82%	63.87%	56.09%	61.25%

Notes: Job satisfaction estimated among subsample of working (2018  $N = 1,146$ , 2021  $N = 2,245$ ). Marital happiness estimated among subsample of married (2018  $N = 2,346$ , 2021  $N = 4,023$ ). <sup>a</sup> indicates significant differences in comparison to non-parent group. <sup>b</sup> indicates significant differences compared to the parent of adult children group. All models weighted and adjusted for complex survey design.

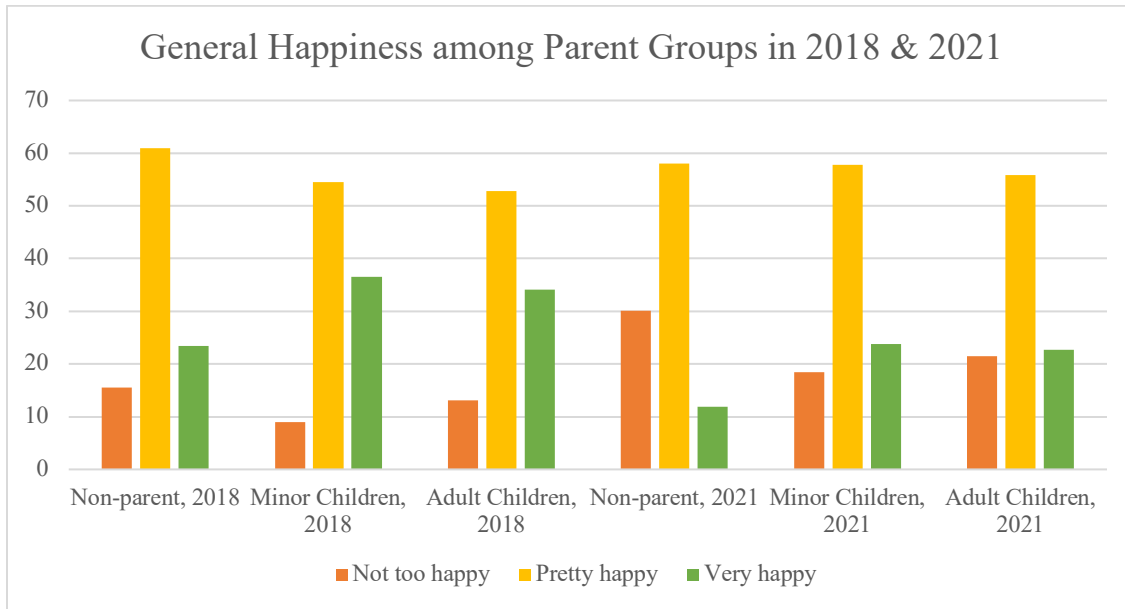


Figure A.1 General Happiness among three Parent Groups in 2018 and 2021



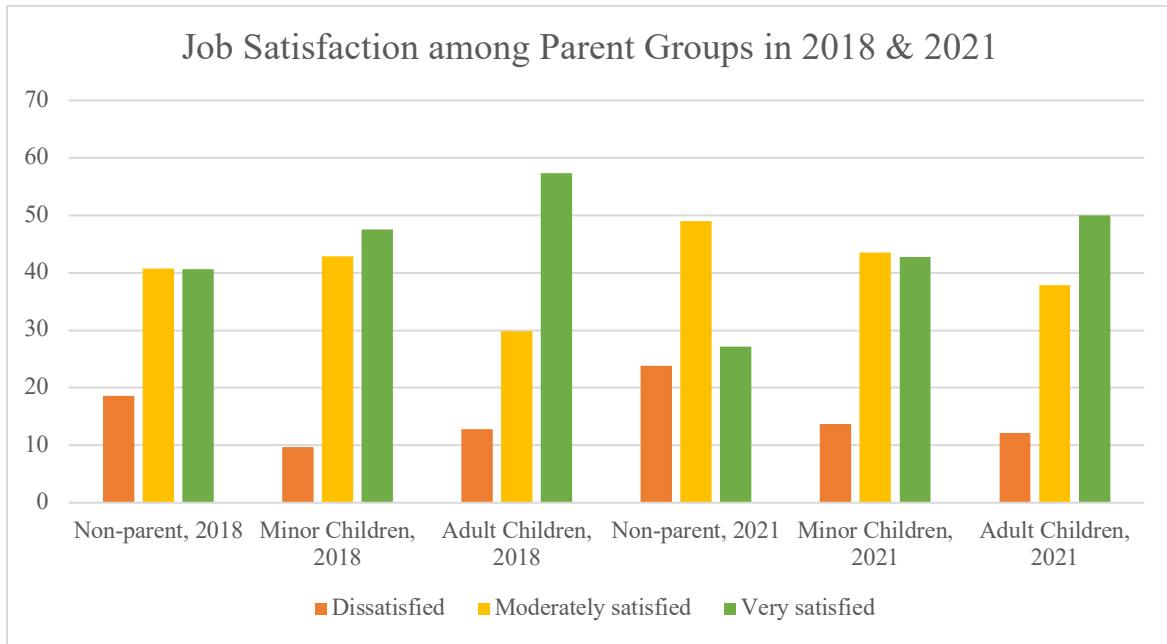


Figure A.2 Job Satisfaction among three Parent Groups in 2018 and 2021

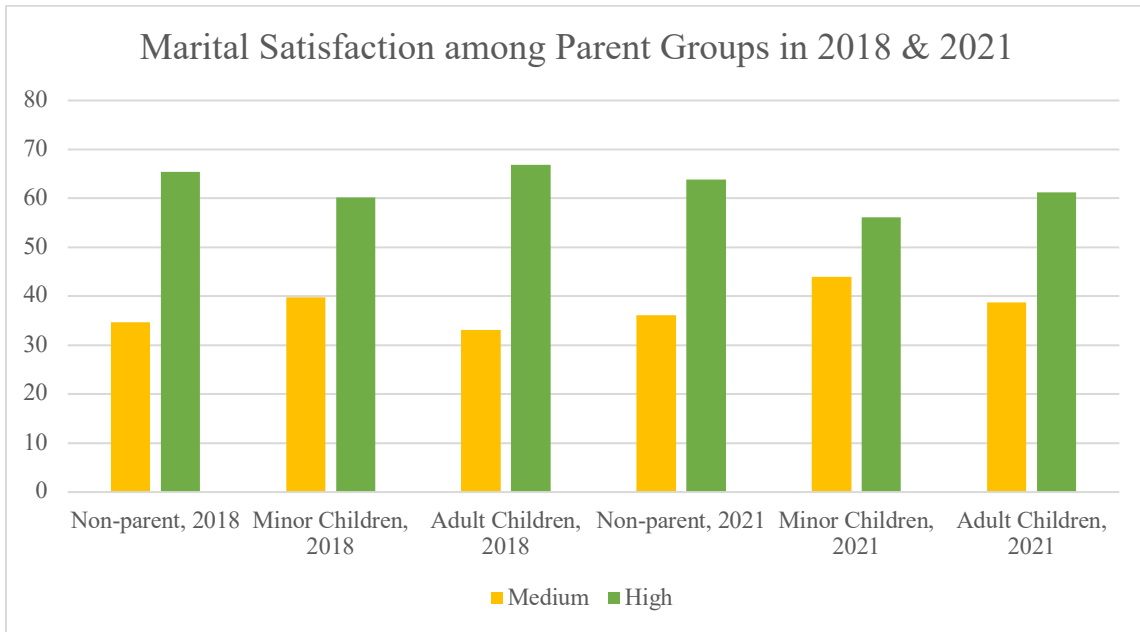


Figure A.3 Marital Satisfaction among three Parent Groups in 2018 and 2021

Table A.4 Average Marginal Effects (AMEs) for Non-parents and Parents of Minor Children and Parents of Adult Children

	General Happiness		Job Satisfaction		Marital Satisfaction	
	Low	High	Low	High	Medium	High
<b>Panel A. Parents Minor Children</b>						
<b>1. Ordered logistic</b>						
Parental wellbeing gap 2021-2018	-.042	.016	-.047	.062	-.091	-.103*
<b>2. Generalized logistic</b>						
Parental wellbeing gap 2021-2018	-.020	.031	-.039	.073	-.091	-.103*
<b>3. Multinomial logistic</b>						
Parental wellbeing gap 2021-2018	-.022	.025	-.043	.072	---	---
<b>Panel B. Parents Adult Children</b>						
<b>1. Ordered logistic</b>						
Parental wellbeing gap 2021-2018	-.032	.032	-.046	.052	.046	.009
<b>2. Generalized logistic</b>						
Parental wellbeing gap 2021-2018	-.022	.048	-.064	.055	---	---
<b>3. Multinomial logistic</b>						
Parental wellbeing gap 2021-2018	-.031	.045	-.073	.056	---	---

Notes: Models control for sex, age, income, education, work status, marital status, race, nativity, region, and survey wave and adjust for the complex sampling design of the GSS. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .