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**CHANGES IN MOTHERS' PERCEPTIONS OF NEIGHBORHOOD QUALITY,
CHILD WELL-BEING, AND PARENTING STRESS, 1976 – 2002**

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Changes in Mothers' Perceptions of Neighborhood Quality, Child Well-Being, and Parenting Stress, 1976 – 2002

ABSTRACT

Qualitative research and popular culture emphasize that changing ideologies regarding children and parenting have resulted in increased concerns about the safety of children in the neighborhood, a perceived decline in the well-being of children, and an overall increase in parenting stress among mothers with college degrees since the 1970s. Quantitative examination of this claim is limited, however. Analyses using two national data of children aged 8 to 12 (N = 2,397) suggest that on average mothers in 2002 perceived better neighborhood quality and child health than their counterparts in 1976 because of sociodemographic changes that indicate more resources such as higher levels of education and being older. After controlling for sociodemographic factors, mothers in 2002, especially college-educated mothers, report poorer neighborhood quality, poorer child health, and more child behavioral problems than their counterparts in 1976. Yet, mothers without college degrees, not college-educated mothers, report a higher level of parenting stress in 2002 than in 1976. These findings suggest support for the premise of changing ideologies but also call for more attention to structural changes and increased burdens of parenting among less privileged mothers over the past decades.

In the past few decades, qualitative research has illustrated changing ideologies regarding children and parenting in the United States and other western nations. This is particularly true among college-educated mothers. As suggested by Hays (1996), the “intensive mothering” ideology, which demands mothers’ responsibility for almost all aspects of their children’s behavior and developmental outcomes, has become a dominant aspect of parenting. As uncertainty in society has grown over this period, children are increasingly viewed as innocent and vulnerable; and parents, particularly mothers, are held accountable for managing the risk that children may face and protecting children from harm (Nelson 2008; Valentine and McKendrick 1997). Mothers today commonly express fear and concerns regarding the safety of their children in the neighborhoods that their mothers did not experience (Kurz, 2000; Nelson, 2008; Pain, 2006; Valentine and McKendrick, 1997). Mothers today are particularly attuned to children’s behavior and developmental outcomes, constantly feeling pressure to enhance children’s intellectual and social potential (Hays, 1996; Lareau, 2003; Wall, 2010). Such research findings are echoed by popular culture which has featured anxious, overinvolved middle-class mothers (e.g., Anderegg, 2003; Warner, 2005).

Demographic and economic changes that have occurred among mothers since the 1970s, by contrast, suggest that mothers today, especially those with college degrees, have more resources that might help them cope with burdens of parenting. Today’s mothers are, on average, more educated, older, have fewer children, and more likely to be employed (Leibowitz and Klerman, 1995; Matthew and Hamilton, 2009), all of which are related to lower perceived parenting stress (Nomaguchi and Brown, 2011). It is possible that increased resources, due to demographic and economic changes, may have counterbalanced the increase in parenting demands as a result of normative ideological changes regarding children and parenting. In

contrast, with a decline in economic prospects for those without college degrees, due to the downsizing of the manufacturing sector and the shift in skill demands (Autor, Katz, and Kearney, 2008), economic and family circumstances for mothers without college degrees have become increasingly challenging since the 1970s. Mothers without college degrees, compared to those mothers with college degrees, may have experienced increased stress in raising children. Quantitative research examining changes in mothers' perceptions of neighborhood quality, child health and behavior, and stress of parenting from the 1970s to today is scarce, however.

Using two national samples of mothers with children aged 8 to 12, the 1976 National Survey of Children (NSC 1976) and the 2002 Child Development Supplement to the Panel Study of Income Dynamics (CDS 2002), we examine changes in mothers' *perceptions* of neighborhood quality to raise a family, child health and behavior, and stress with raising children between 1976 and 2002. We contrast changes in cultural ideologies of parenting and structural changes in mothers' demographic and economic positions as possible sources of changes in perceptions of burdens of parenting during the 26 year period. In doing so, we pay special attention to variations by SES, using four-year college degrees as the indicator that divide middle-class and working-class mothers (Autor, Katz, and Kearney, 2008). The present analysis contributes to the literatures of contemporary motherhood, social causes of stress and well-being, and family inequality by providing quantitative evidence for SES differences in changes in mothers' perceived burdens of parenting between 1976 and 2002.

BACKGROUND

Changes in Ideologies of Children and Parenting: More Burdens of Parenting for College-Educated Mothers

Parenting involves both burdens and rewards. When burdens exceed rewards and other kinds of resources, such as money and social support, parenting becomes a stressful experience (Deater-Deckard, 2004). Among many forms of burdens of parenting, we focus on mothers' perceptions of neighborhood quality to raise children, perceptions of their children's health and behavior, and parenting stress. These measures are of interest considering recent concerns surrounding the safety and wellbeing of children, as well as the increase in standards of parental involvement in children's daily life, which have become central in the dialogue regarding stressfulness in the lives of the contemporary American mother (Hays, 1996; Nelson, 2008; Wall, 2010).

Research has suggested that mothers today may perceive a lower level of neighborhood quality to raise children than mothers in the 1970s. According to Coleman (1988), this is due, in part, because of increases in maternal employment. Social cohesion and support which used to allow mothers to place children in the care of their neighbors may not be cultivated when mothers are in the workforce. Drawing on ideas from postmodern theories, others suggest that rapid social changes have led to a general sense that society has become unpredictable and unstable (Beck, 1992; Giddens, 1999). With increased attention in the media on sex and violence as potential threats to children, childhood no longer seems to be safe or predictable (Jackson and Scott, 1999). Thus, the safety and well-being of their children have become central concerns for mothers (Nelson, 2008). Qualitative research has documented mothers' perceptions of changes in neighborhood safety over time. Many mothers today feel they have to monitor their children's whereabouts constantly, whereas they themselves may have been given latitude to play on the streets, or even in woods, wondering around until dark (Tulloch 2004; Valentine and McKendrick 1997). Kurz (2000) reported that mothers, regardless of SES, are concerned about

their children's safety in their neighborhoods and often worry that their children may get into trouble with others or with drugs or alcohol. Quantitative evidence is limited. Using data from the Texas Poll, a recurring sample survey of Texan residents conducted by the Survey Research Center at the University of Texas at Austin, Warr and Ellison (2000) found that a majority of mothers reported that they were concerned with their children's safety. Because concerns about children's safety is related to more parenting stress (Nomaguchi and Brown, 2011), mothers today may experience more parenting stress than did their counterparts in the 1970s.

Another factor that indicates change in mothers' perceptions of children and an increase in the burden of parenting includes the health and well-being of children. The prevalence of depression, attention-deficit/hyperactivity disorder (ADHD), and oppositional defiance disorder (ODD) has increased among children since the 1970s (Mandell et al., 2005; Robinson et al., 2002; Twenge, 2000). The increase in the diagnosis of children's mental illness are considered due to the advancement of understanding mental health of children and diagnostic changes since 1980 rather than actual increases in the proportion of children who show the same symptom (Mandell et al., 2005; Shorter, 1997). With the removal of stigma of mental health and other health problems of children, more mothers may report their children's health and behavior to be more problematic today than in the 1970s (Warner, 2010). In general, according to the intensive mothering ideology, "proper" childrearing and age-appropriate development are expert-guided. Mothers are expected to provide full attention to the child's cues and behaviors. As advice literature and media emphasizes ADHD as a disease, for example, more mothers than generations prior are pressured to identify a specific set of dysfunctional behavior in their children (Stearns, 2003). Because child's health, behavior, and temperament is a key source of maternal parenting stress (McBride et al., 2002), the increases in mothers' perceptions of

children's poorer health and problematic behavior may indicate that mothers today feel greater stress than mothers in the 1970s.

Finally, the intensive mothering ideology has placed mothers under tremendous pressure to live up to high standards of involvement in their children's lives, as well as feel responsibility for molding children and insuring proper development. In short, demands for parental investment in childrearing have increased since the 1970s, emphasizing mothers' heavy involvement and close monitoring of children (Bianchi, Robinson, and Milkie, 2006; Hays, 1996; Lareau, 2003). Using time diary data, Bianchi and colleagues found that mothers in the 2000s spent more time with their children than those in the 1970s (Bianchi, Milkie, and Robinson, 2006; Sayer, Bianchi, and Robinson, 2004). Nevertheless, the vast majority of mothers feel as if they are not spending enough time with their children (Milkie et al., 2004) and as such, feelings of time deficits are related to mothers' poorer well-being (Nomaguchi, Milkie, and Bianchi, 2005).

These changes in mothers' perceptions of neighborhood quality and child's health and behavioral problems may vary by SES. Lareau (2003) emphasizes that the intensive method of parenting, or what she called "concerted cultivation", is more often used by affluent mothers compared to their less affluent counterparts. With the increase in uncertainty in the labor market, mothers with a college degree feel responsible for making sure that their children will have the same, if not better, economic standing in the future (Nelson, 2008). The increased emphasis on school performance may lead to mothers' to have harsher evaluations of children's behavior and finding their children's behavior problematic (Schneider, 2006). Further, college-educated mothers feel more open to identifying their children's poorer health, where less educated mothers may not (Warner 2010). Finally, quantitative research has shown that college-educated mothers are more likely than less educated mothers to be engaged in the "intensive mothering" method of

childrearing (Cheadle and Amato, 2011; Sayer et al., 2004), which is highly exhausting (Rizzo et al., 2013). In sum, changes in ideologies regarding children and parenting suggest that mothers today, especially those with college degrees, may report poorer neighborhood quality, poorer child health, more child behavioral problems, and more feelings of being worn out than their counterparts in the 1970s.

Structural Changes: More Resources for College-Educated Mothers

As mentioned earlier, from the 1970s to today, U.S. mothers have shown dramatic changes in their demographic and socioeconomic characteristics. Some of these characteristics may be related to greater access to resources for them to deal with demands of parenting, including being older, having fewer children, having a higher level of education, and more likely to be employed. Older age is related to more resources and thus related to less parenting stress (Nomaguchi and Brown, 2011; Nomaguchi and House, 2013). Having fewer children is related to fewer daily parenting demands and therefore is related to fewer parenting stressors (McBride et al. 2002; Nomaguchi and House, 2013). Employment and higher family income have been shown to be related to lower levels of parenting stress (Goldsteen and Ross, 1989; Mulsow et al., 2002; Nomaguchi and Brown, 2011). Other demographic changes might have led to an increase in parenting stress. Being a single mother (Avison et al., 2007; Nomaguchi and House, 2013) tends to result in greater daily parenting demands and thus may be related to greater parenting stressors. On average, Black, Hispanic, and Asian mothers report more parenting stress than their white counterparts (Nomaguchi and House, 2013). The link between education and maternal parenting stress is complex. Although highly educated mothers have more resources that may help them cope with the daily demands of parenting, they tend to feel more stress due to higher standards of parental investment and more work-family conflict (Nomaguchi and Brown, 2011;

Nomaguchi and House, 2013). Overall, some demographic and socioeconomic changes from 1976 to 2002 appear to indicate less parenting stress in 2002 than in 1976.

These demographic and socioeconomic changes occurred unevenly between those with college degrees and those without college degrees. Globalization and automation have shifted the U.S. economy from the manufacturing to service economy. This shift has fostered polarization between high-skilled, high paying jobs and low-skilled, low-paying jobs (Autor, Katz, and Kearney, 2008). Williams (2010) argues that the lack of benefits such as health insurance, paid sick leaves, or flexible schedules, as well as the lack of affordable child care, has made it stressful for mothers without a college degree to combine paid work with childcare. The increase in economic inequality has led to a growing inequality in marriage and partnership. Mothers without a college degree are more likely than mothers with a college degree to be a single mother (McLanahan, 2004). Not having a partner in the household is related to more parenting stress (Nomaguchi and House, 2013).

Nelson (2010) has emphasized that the increase in dangers in U.S. society is a concern more relevant to less-educated mothers than highly educated mothers due to differences in the levels of resources they have to protect their children from the danger. Kurz (2000), too, mentions that mothers in low-income neighborhoods expressed immediate concerns regarding safety issues of their children due to deteriorations of their neighborhoods. Using data from NICHD Early Child Care and Youth Development Study, Nomaguchi and Brown (2011) found that less educated mothers were more likely than highly educated mothers to report parenting stress due to the safety and developmental outcomes of children.

In sum, the structural perspective, which focuses on demographic and economic changes since the 1970s, suggests that resources that mothers can use to cope with burdens of

childrearing may have increased for those with college degrees, whereas they have declined for those without college degrees. Thus it could be that mothers without college degrees are more likely than their affluent counterparts to report declines in neighborhood quality and child health and increases in child behavioral problems and feeling more stressed from childrearing from the 1970s to the 2000s.

THE PRESENT STUDY

Using two nationally representative samples, drawn from NSC 1976 and CDS 2002, the present analysis examines changes in mothers' perceptions of neighborhood quality, child health and behavior, and stress in raising children from 1976 and 2002 with a specific focus on social class differences. We ask: (a) How did mothers' perceptions of neighborhood quality, child health, child behavioral problems, and stress from raising children change from 1976 and 2002? (b) To what extent do differences between 1976 and 2002 are due to demographic and economic changes, such as mothers' age, education, employment, the number of children, and family income; or due to changes in cultural ideologies regarding children and parenting? (c) Do patterns differ for mothers with college degrees and mothers without college degrees? Although we expect that there are SES variations in changes, two contrasting predictions are possible. The cultural ideology perspective suggests that mothers perceive poorer neighborhood quality, child health, and child behavior, and report feeling more worn out in 2002 than in 1976; and these changes may be more likely to be found among college-educated mothers than mothers without college degrees. In contrast, the structural perspective suggests that such changes may be found more for mothers without college degrees than mothers with college degrees.

Because age of children may be related to mothers' perceptions of neighborhood quality, child health, child behavioral problems, and stress in raising children (Kurz, 2000; Nomaguchi

and Brown, 2011), we control for child age in order to account for differences in the distribution of children by age between two samples.

METHOD

Data

The 1976 National Survey of Children (NSC 1976) was sponsored by the Foundation for Child Development and included children living in households in the contiguous United States (Zill, Furstenberg, Peterson, and Moore. 1990). The children were ages 7-11 and were born between September 1, 1964 and December 31, 1969. The sample size for the NSC 1976 was $n = 2,301$. We selected cases where the respondent was the child's mother ($n = 2,180$). Finally, we limited the sample to include children ages 8 to 12 only because the CDS data did not include children aged under 8 ($n = 1,673$).

The Child Development Survey (CDS 2002) is a part of the national longitudinal Panel Study of Income Dynamics (PSID). The PSID is a nationally representative longitudinal survey of families the University of Michigan launched in 1968. PSID families who completed the 1997 interview were recruited into the first wave of the CDS if they had at least one child aged 0-12 in 1997 ($n = 3,563$). The second wave was collected in 2002 – 03 for which 82% ($n = 2,907$) of children from the first wave participated (for more information about the PSID-CDS, see <http://psidonline.isr.umich.edu/Studies.aspx>). We selected cases where the respondent was the child's mother ($n = 2,443$). We then limited the sample to include children ages 8 to 12 only, because the NSC data did not include children aged over 12, dropping the sample size to $n = 724$.

Measures

Mother's perception of poorer neighborhood quality for raising children was measured by the question, "How is this neighborhood as a place for kids to grow up in?" (NSC 1976) and

“How would you rate your neighborhood as a place to raise children? (CDS 2002) (1 = *excellent*, 2 = *very good*, 3 = *good*, 4 = *fair*, or 5 = *poor*). *Child’s behavioral problems* was measured by average of four items ($\alpha = .66$ for NSC 1976 and $\alpha = .68$ for CDS 2002), “(He/She has difficulty concentrating,” “(He/She) is easily confused,” “(He/She) is restless or overly active,” and “(He/She) breaks things on purpose or deliberately destroys (his/her) own or another’s things.” Because the number of response categories differed for NSC 1976 and CDS 2002, all items were standardized before averaged to create the scale. *Poorer child health* was measured by the question, “How would you describe [child’s] health now as 1 = *excellent*, 2 = *very good*, 3 = *good*, 4 = *fair*, or 5 = *poor*?” *Maternal parenting stress* was measured by the question, “Many parents feel worn out from time to time with the burdens of raising a family. How often do you feel tired, worn out, or exhausted from raising your family?” (1 = *never* to 5 = *all the time* in NSC 1976; 1 = *not at all true* to 5 = *completely true* in CDS 2002).

Year was measured as a dichotomous variable where mothers in CDS 2002 were assigned values of 1 and mothers in NSC 1976 were assigned values of 0. Mother’s sociodemographic characteristics include seven indicators. *Age* was measured in years. *The number of children* under age 18 in the household was measured as the total number of children under 18 years of age at the time of survey. *Race/ethnicity* was measured by three categories, including white, black, and other. *Single mother status* was measured as a dichotomous variable (1 = *single*). *College degree* was a dichotomous variable where those with 4-year college degrees and above were assigned 1s and others 0s. *Employment status* included three categories, full-time, part-time, and not employed. *Family income* was a continuous variable indicating household income during the previous year. In the NSC 1976, family income was measured as 13 categories indicating total family income before taxes in 1975, ranging from less than \$3,000 to \$35,000

and over. To make this a continuous variable, we calculated the median of each income category. *Age of children* was measured in years.

Analytic Plan

First we examined descriptive statistics for all variables by year and college degrees. Differences in means were examined using t-tests. Then for multivariate analyses, we used ordinary-least-squared (OLS) regression models. Three models were examined for each outcome variable. Model 1 examined differences in mothers' perceptions between 1976 and 2002 controlling for child's age. Model 2 added other demographic and socioeconomic variables to Model 1 to examine differences in mothers' perceptions between 1976 and 2002 when changes in demographic and socioeconomic characteristics during the 26 year periods were taken into account. Model 3 added an interaction term between year and college degrees to Model 2 to examine social class differences in changes in outcome variable from 1976 to 2002. Some variables had a small percentage of missing values. We used multiple imputation method suggested by Allison (2002) with five iterations in SAS.

RESULTS

Table 1 presents the descriptive statistics for all variables in analyses for the total sample and by year and education. Between 1976 and 2002, there were many changes in the levels of maternal perceptions of burdens of parenting as well as demographic and socioeconomic positions. Mothers' perceptions of poor neighborhood quality declined from 1976 to 2002, regardless of education level, and for mothers without college degrees, perceptions of poorer health also declined. There was little change in average scores of mothers' perceptions of child behavioral problems. The average score for mothers' parenting stress, or their sense of being worn out from raising children, increased only among those without college degrees. Compared

to mothers in 1976, mothers in 2002 were more likely to have college degrees, be older, have fewer children, be employed, have higher family incomes, be unmarried, and be nonwhite.

[Table 1 about here]

Table 2 presents results from OLS regressions for the four outcomes of mothers' perceptions of burdens of parenting. Although at bivariate level mothers in 2002 reported better neighborhood quality to raise children than mothers in 1976, this difference disappeared when demographic changes were controlled for (Model 2). In supplemental analysis (data not shown), we found that there was no single dominant factor that contributed to the decline in coefficient for year 2002, but the sum of changes including older age of mothers, having fewer children, having more education, having more family income, and being employed. Model 3 shows that the interaction between year 2002 and having a college degree was significant and the sign was positive ($b = .297, p < .05$). To interpret this interaction effect, we calculated predicted means for poor neighborhood quality by year and having a college degree or not (Figure 1). In 1976, college-educated mothers scored lower in poorer neighborhood quality than mothers without college degrees. In 2002, however, there was little SES difference, as the average rating of poorer neighborhood quality increased for college-educated mothers from 1976 to 2002, whereas it decreased for mothers without college degrees. The effect size of year for college-educated mothers was 13.9% (i.e., $(-.137 + .297)/1.15 \times 100$), a small size according to Cohen (1988).

[Table 2 and Figure 1 about here]

For child health, as seen for neighborhood quality, controlling for structural characteristics, the negative association between year 2002 and poorer child health disappeared (Model 2). Model 3 finds significant social class differences. The predicted means (Figure 2) show similar patterns as we find for neighborhood quality. College-educated mothers averaged

better child health than mothers without college degrees in 1976. The average rating of poorer child health increased for college-educated mothers from 1967 to 2002, whereas it stayed almost the same for mothers without college degrees. The effect size of year for college-educated mothers was 35.5%, a medium size according to Cohen (1988).

[Figure 2 about here]

For child behavioral problems, although there was no difference between mothers in 2002 and in 1976 at bivariate level (Model 1), when structural factors were controlled for (Model 2), year 2002 was actually related to more child behavioral problems. Model 3 suggests there was no significant difference by social class (the difference was marginal). This suggests that regardless of social class, within the same level of demographic characteristics and income, mothers in 2002 reported worse behavioral outcomes of children. The effect size was 22% (e.g., $.161/.70 \times 100$), close to a medium size (25% and above) according to Cohen (1988).

Finally, results for parenting stress showed social class differences. As Figure 3 shows, there was little change in the average rating for “worn out” for mothers with college degrees between 1976 and 2002, but it increased for mothers without college degrees. The effect size for the year 2002 for mothers without college degrees was 31% (e.g., $.327/1.03 \times 100$), a medium size, according to Cohen (1988).

[Figure 3 about here]

In sum, at bivariate level, mothers in 2002 report better neighborhood quality to raise children and better child health than mothers in 1976, although there was no difference in mothers’ ratings of child behavioral problems, regardless of mothers’ education levels. When demographic and economic characteristics were controlled for, mothers in 2002, regardless of education level, reported more child behavioral problems than mothers in 1976. In addition,

college-educated mothers in 2002 reported poorer neighborhood quality and poorer child health than their counterparts in 1976. Nevertheless, among college-educated mothers there was no difference in the average rating of stress with raising children from 1976 to 2002. Instead, mothers without college degrees in 2002 reported feeling more stress with raising children than their counterparts in 1976, despite increased resources during the time period.

DISCUSSION

Contemporary ideologies regarding children and parenting have suggested an increase in the burdens of parenting among those mothers with college degrees since the 1970s, including concerns about neighborhood safety and child well-being, as well as stress and exhaustion from keeping up with the intensive mothering method (Hays, 1996; Nelson, 2008; Warner, 2005). In contrast, structural changes since the 1970s suggest that there have been more resources for mothers with college degrees to cope with burdens of parenting. Instead, mothers without college degrees may be more stressed as parents today than in the past (Kurz, 2000; Nelson, 2010; Williams, 2010). This paper offers quantitative examinations as to how mothers' perceptions of neighborhood quality, child health and behavior, and overall sense of burdens of parenting changed from 1976 and 2002 and how the patterns differ by SES. The findings indeed suggest SES disparities in changes in mothers' reports in a nuanced way.

In general, mothers in 2002 are more advantaged than mothers in 1976 with regard to demographic and socioeconomic characteristics, such as being older, having more education, and having higher family incomes, regardless of whether they had a college degree. Thus, it is not surprising that at the descriptive level, mothers in 2002 reported a higher level of neighborhood quality and better child health than mothers in 1976, on average, indicating support for the structural perspective. After controlling for demographic and socioeconomic characteristics,

mothers in 2002 reported more child behavioral problems than did mothers in 1976, regardless of educational attainment. In addition, those with college degrees reported poorer neighborhood quality and poorer children health, suggesting support for the cultural ideology perspective. Yet, for the sense of being worn out from raising children, mothers with college degrees show little difference in 2002 than in 1976. Instead, mothers without college degrees reported more feeling worn out in 2002 than in 1976, providing support for the structural perspective. In short, as the cultural ideology perspective suggests, college-educated mothers in 2002 perceive poorer neighborhood quality and worse child well-being than their counterparts in 1976 at the same levels of demographic and socioeconomic characteristics. However, as the structural perspective suggests, mothers without college degrees experienced greater parenting stress, on average, in 2002 than in 1976.

What might be the sources of increases in parenting stress for less privileged mothers even though they reported better neighborhood safety and better child health? The increases in economic inequality, such as disparities in job opportunities, earnings, and accumulation of debt have been documented (Autor, Katz, and Kearney, 2008). SES differences in family structure—lower marriage rates and higher divorce rates for less privileged mothers than mothers with college degrees—have also been widened (Martin, 2006). The increases in economic and family inequalities since the 1970s may have contributed to the overall increases in burdens of raising children among mothers without college degrees.

The present analysis has limitations that future research should address. First, some of the outcome variables were measured based on one question. This is mostly because data were limited in 1976 NSC. Yet, parenting stress, for example, can be experienced in a various forms, including anxiety, parent-child relationship conflict, role captivity, overload, and daily hassles

(Deater-Dechard, 2004; Nomaguchi and Brown, 2011). It is possible that mothers in different SES may have experienced changes in parenting stress in specific forms. We were unable to examine such nuanced changes. Second, our samples focused on mothers with children aged 8 to 12. It is possible that the degree of increases in mothers' concerns about the safety and well-being of children as well as overall parenting stress might have depended on the age of children. Third, SES disparities could have been gotten even worse after 2002 following the Great Recession. It is important to continue to examine SES disparities in burdens of parenting, especially focusing on those without college degrees.

Research on contemporary motherhood has focused on changing ideologies of children and parenting and their implications for the well-being of college-educated mothers. The present analysis provides some support for increases in perception of poorer neighborhood quality and child health among college-educated mothers. More importantly, the present study shows that the increase in stress of parenting was found among mothers without college degrees, not among mothers with college degrees. These results call for the shift in attention of researchers as well as popular culture from college-educated middle-class mothers to less-privileged mothers who have increasingly faced challenging contexts of parenting.

REFERENCES

- Anderegg, David. 2003. *Worried All the Time: Rediscovering the Joy in Parenthood in an Age of Anxiety*. New York: Free Press.
- Allison, Paul. 2002. *Missing Data*. Thousand Oaks, CA: Sage.
- Autor, David H., Katz, Lawrence F., and Melissa S. Kearney. 2008. "Trends in U.S. Wage Inequality: Revising the Revisionists." *The Review of Economics and Statistics* 90(2): 300 – 323.
- Bianchi, Suzanne M., John P. Robinson and Melissa A. Milkie. 2006. *Changing Rhythms of American Family Life*. New York: Russell Sage.
- Cheadle, Jacob E., and Paul R. Amato. 2011. A Quantitative Assessment of Lareau's Qualitative Conclusions about Class, Race, and Parenting. *Journal of Family Issues* 32: 679 – 706.
- Cohen, Jacob. 1988. *Statistical power analysis for the Behavioral Sciences*. Hillsdale, NJ: Erlbaum.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American journal of sociology*, (94): S95-S120.
- Deater-Deckard, Kirby. 2004. *Parenting Stress*. New Haven, CT: Yale University Press.
- Hays, Sharon. 1996. *The Cultural Contradictions of Motherhood*. New Haven and London: Yale University Press.
- Jackson, Stevi, and Sue Scott. 1999. "Risk Anxiety and the Social Construction of Childhood." Pp. 86 – 107 in Deborah Lupton (Ed.), *Risk and Sociocultural Theory: New Directions and Perspectives*. London: Cambridge University Press.
- Kurz, Demie. 2000. "Work-Family Issues of Mothers of Teenage Children." *Qualitative Sociology* 24 (4): 435–51.

- Lareau, Annette. 2003. *Unequal Childhoods: Class, Race, and Family Life*. Berkeley, CA: University of California Press.
- Leibowitz, Arleen, and Jacob Alex Klerman. 1995. "Explaining changes in married mothers' employment over time." *Demography*, 32(3): 365-378.
- Martin, Stephen P. 2006. "Trends in Marital Dissolution by Women's Education in the United States." *Demographic Research* 15 (20): 537 – 560.
- Mathews, T. J., and Brady E. Hamilton. 2009. "Delayed childbearing: more women are having their first child later in life." US Department of Health and Human Services, Centers for Disease Control and Prevention, *National Center for Health Statistics*. Data Brief (21): 1 - 8.
- Mandell, David S., William W. Thompson, Eric S. Weintraub, Frank DeStefano, and Michael B. Blank. 2005. "Trends in Diagnosis Rates for Autism and ADHD at Hospital Discharge in the Context of Other Psychiatric Diagnoses. *Psychiatric Services* 56(1): 56 – 62.
- McLanahan, Sara. 2004. "Diverging Destinies: How Children are Faring in the Second Demographic Transition." *Demography*, 41(4): 607 – 627
- Milkie, Melissa A., Marybeth J. Mattingly, Kei M. Nomaguchi, Suzanne M. Bianchi, and John P. Robinson. 2004. The time squeeze: Parental statuses and parents' feelings about time with children. *Journal of Marriage and Family*, 66 (3): 739 - 761.
- Nelson, Margaret K. 2008. "Watching children: Describing the use of baby monitors on Epinion.com." *Journal of Family Issues*, 29 (4): 516 – 538.
- Nelson, Margaret K. 2010. *Parenting Out of Control: Anxious Parents in Uncertain Times*. New York: New York University Press.

- 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.
- 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.
- Nomaguchi, Kei, and Amanda N. House. 2013. "Racial-Ethnic Disparities in Maternal Parenting Stress: The Role of Structural Disadvantages and Parenting Values." *Journal of Health and Social Behavior* 54 (September): 386 – 404.
- Pain, Rachel. 2006. "Paranoid Parenting? Rematerializing Risk and Fear for Children." *Social and Cultural Geography* 7 (2): 221 – 243.
- 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
- Robinson, Linda M., Tracy L. Skaer, David A. Sclar, and Richard S. Galin. 2002. "Is Attention Deficit Hyperactivity Disorder Increasing Among Girls in the U.S.?" *CNS Drugs* 16 (2): 129 – 137.
- 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.
- Stearns, Peter N. 2003. *Anxious parents: A history of modern childrearing in America*. New York: New York University Press.
- Tulloch, Marian. 2004. "Parental Fear of Crime: A Discursive Analysis." *Journal of Sociology* 40 (4): 363 – 377.

- Twenge, Jean M. 2000. "The Age of Anxiety? Birth Cohort Change in Anxiety and Neuroticism, 1952 – 1993." *Journal of Personality and Social Psychology* 79 (6): 1007 – 1021.
- Valentine, Gill, and John McKendrick, 1997. "Children's Outdoor Play: Exploring Parental Concerns About Children's Safety and the Changing Nature of Childhood." *Geoforum*, 28(2): 219 – 235.
- Wall, Glenda. 2010. "Mothers' experiences with intensive parenting and brain development discourse." *Women's Studies International Forum*, 33 (3): 253 - 263.
- Warner, Judith. 2005. *Perfect Madness: Motherhood in the Age of Anxiety*. New York: Riverhead Books.
- Warner, Judith. 2010. *We've Got Issues: Children and Parents in the Age of Medication*. New York: Riverhead Books.
- Warr, Mark, and Christopher G. Ellison. 2000. "Rethinking Social Reactions to Crime: Personal and Altruistic Fear in Family Households." *American Journal of Sociology* 106 (3):551–78.
- Williams, Joan C. 2010. "The Odd Disconnect: Our Family-Hostile Public Policy." Pp. 196 – 219 in Kathleen Christensen and Barbara Schneider (Eds.), *Workplace Flexibility: Realigning 20th Century Jobs for a 21st-Century Workplace*. Ithaca, NY: Cornell University Press.
- Zill, Nicholas, Frank Jr. Furstenberg, James Peterson, and Kristin Moore. 1990. National Survey of Children: Wave I, 1976, Wave II, 1981, and Wave III, 1987. ICPSR08670-v3. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Table 1. Means (SD) or % for Variables by Year for Total Sample and by College

	Total			College Degree			No College Degree			
	Total	By Year		1976	By Year		1976	By Year		
		1976	2002		2002	1976		2002		
Maternal Perceptions of Burdens of Parenting										
Poor neighborhood quality (1 - 5)	2.32 (1.15)	2.44 (1.18)	2.05 (1.05)	***	1.95 (0.89)	1.60 (0.90)	***	2.49 (1.19)	2.20 (1.05)	***
Poor child health (1 - 5)	1.67 (0.83)	1.72 (0.85)	1.57 (0.79)	***	1.35 (0.58)	1.35 (0.69)		1.75 (0.86)	1.65 (0.79)	**
Child behavioral problems	-0.001 (0.70)	0.000 (0.70)	-0.001 (0.70)		-0.25 (0.42)	-0.20 (0.58)		0.02 (0.71)	0.07 (0.72)	
Parenting stress (1 - 5)	2.56 (1.03)	2.48 (0.87)	2.72 (1.31)	***	2.61 (0.74)	2.65 (1.33)		2.47 (0.88)	2.75 (1.31)	***
Demographic and socioeconomic characteristics										
College degree	13.37%	8.23%	25.29%	***						
Mother's age	36.54 (6.22)	35.48 (6.07)	39.02 (5.84)	***	37.98 (4.88)	42.88 (4.60)	***	35.26 (6.12)	37.72 (5.60)	***
Number of children < 18	2.85 (1.35)	3.03 (1.45)	2.41 (0.94)	***	2.72 (1.23)	2.47 (0.93)		3.06 (1.47)	2.39 (0.94)	***
Full-time employed	33.98%	26.87%	50.48%	***	27.04%	35.03%	***	26.85%	55.71%	***
Part-time employed	19.53%	15.24%	29.48%	***	29.01%	42.96%	*	14.01%	24.92%	***
Not employed	46.49%	57.89%	20.04%	***	43.94%	22.01%	***	59.14%	19.37%	***
Annual family income	29.70 (33.91)	14.94 (9.70)	63.95 (43.72)	***	25.63 (12.08)	100.61 (46.43)	***	13.96 (8.82)	51.58 (35.99)	***
Unmarried	19.61%	17.66%	24.14%	***	4.73%	6.22%		18.82%	30.20%	*
White	78.43%	81.12%	72.20%	***	91.55%	90.36%		80.18%	66.05%	***
Black	15.01%	14.67%	15.79%		7.34%	4.95%		15.32%	19.46%	*
Other race	6.56%	4.21%	12.01%	***	1.11%	4.68%		4.49%	14.49%	***
Control										
Child age (8 - 12)	9.88 (1.26)	9.67 (1.21)	10.36 (1.25)	***	9.75 (1.18)	10.29 (1.43)	***	9.66 (1.21)	10.38 (1.20)	***

N	2,397	1,673	724	144	146	1,529	578
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Note: Differences in means by year were significant at * $p < .05$; ** $p < .01$; and *** $p < .001$ levels.

Table 2. Ordinary Least Squares Regression Models Predicting Differences in Maternal Perceptions of Burdens of Parenting Between 1976 and 2002 (N = 2,397)

	Poor Neighborhood Quality			Poor Child Health		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Year 2002 ^a	-.387 *** (.052)	-.111 (.073)	-.137 (.073)	-.151 *** (0.04)	.050 (0.05)	.027 (0.05)
College degree		-.182 * (.073)	-.317 *** (.096)		-.169 ** (0.05)	-.292 *** (0.07)
Year 2002 x College			.297 * (.137)			.268 ** (0.10)
Mother's age		-.013 *** (.004)	-.014 *** (.004)		.000 (0.00)	.000 (0.00)
Number of children		-.015 (.017)	-.017 (.017)		.036 ** (0.01)	.034 ** (0.01)
Part time ^a		.010 (.063)	.008 (.063)		.077 (0.05)	.075 (0.05)
Non-employed ^a		.062 (.053)	.055 (.053)		.064 (0.04)	.058 (0.04)
Family income		-.005 *** (.001)	-.006 *** (.001)		-.003 *** (0.00)	-.004 *** (0.00)
Unmarried ^a		.306 *** (.063)	.300 *** (.063)		.183 *** (0.05)	.178 *** (0.05)
Black ^a		.639 *** (.070)	.637 *** (.070)		.313 *** (0.05)	.311 *** (0.05)
Other race ^a		.542 *** (.090)	.546 *** (.090)		.151 * (0.07)	.154 * (0.07)
Child age	-.010 (.019)	.006 (.018)	.008 (.018)	.001 (0.01)	-.002 (0.01)	.000 (0.01)
Intercept	2.542 *** (0.19)	2.790 *** (0.20)	2.815 *** (0.20)	1.709 *** (0.14)	1.545 *** (0.15)	1.566 *** (0.15)
R ²	0.025 ***	0.162 ***	.164 ***	.007 ***	.087 ***	.089 ***

*p < .05; **p < .01; ***p < .001

Note: Omitted reference groups are: Year 1976, mothers without a college degree, full-time employed, married, and white.

Table 2. Cont.

	Child Behavioral Problems						Parenting Stress					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Year 2002 ^a	.007 (0.03)	.161 *** (0.05)	.148 ** (0.05)	.242 *** (0.05)	.297 *** (0.07)	.327 *** (0.07)						
College degree		-.129 ** (0.05)	-.195 ** (0.06)	.026 (0.07)	.177 + (0.09)							
Year 2002 x College			.146 + (0.09)									
Mother's age		-.010 *** (0.00)	-.010 *** (0.00)									
Number of children		.017 (0.01)	.016 (0.01)	.130 *** (0.02)	.132 *** (0.02)							
Part time ^a		-.046 (0.04)	-.047 (0.04)									
Non-employed ^a		-.049 (0.03)	-.052 (0.03)									
Family income		-.002 ** (0.00)	-.003 *** (0.00)	.001 (0.00)	.001 (0.00)							
Unmarried ^a		.188 *** (0.04)	.185 *** (0.04)	.258 *** (0.06)	.265 *** (0.06)							
Black ^a		-.040 (0.04)	-.042 (0.04)	-.321 *** (0.07)	-.318 *** (0.07)							
Other race ^a		-.092 (0.06)	-.090 (0.06)	-.348 *** (0.09)	-.353 *** (0.09)							
Child age	-.012 (0.01)	-.003 (0.01)	-.002 (0.01)	-.004 (0.02)	-.005 (0.02)	-.007 (0.02)						
Intercept	0.118 (0.11)	0.381 (0.13)	.394 ** (0.13)	2.526 *** (0.17)	2.458 *** (0.19)	2.426 *** (0.19)						
R ²	0.0005	0.048 ***	.049 ***	.025 ***	.051 ***	.051 ***						

*p < .05; **p < .01; ***p < .001

Note: Omitted reference groups are: Year 1976, mothers without a college degree, full-time employed, married, and white.

Figure 1. Mothers' Report of Poorer Neighborhood Quality

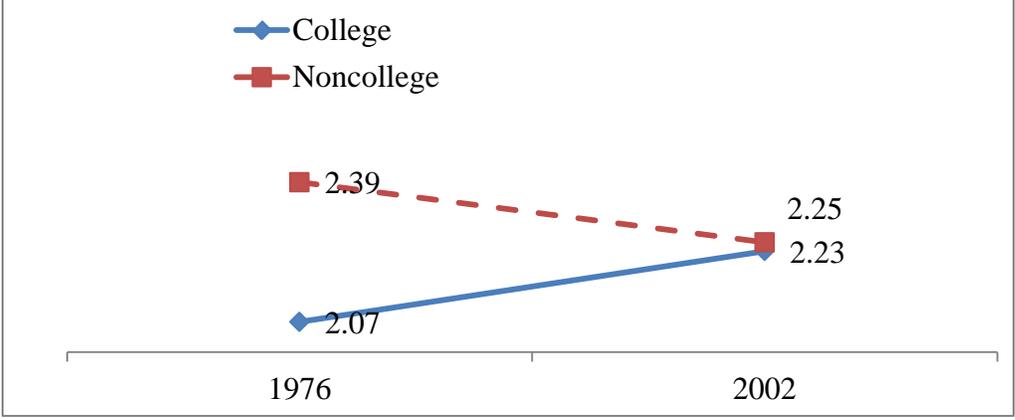


Figure 2. Mothers' Report of Poorer Child Health

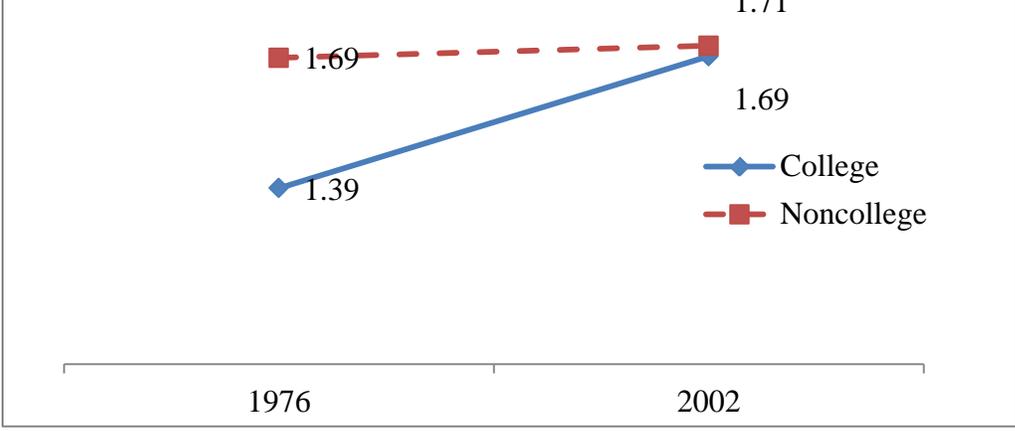


Figure 3. Mothers' Report of Parenting Stress

