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# PATERNAL PARTICIPATION AND <br> OFFSPRING WELL-BEING IN EARLY ADULTHOOD 

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## Introduction

Until fairly recently, fathers have been largely neglected in research on parental influence on child outcomes. Since mothers have historically been the primary caretakers of children, past research on family processes and child outcomes has focused almost exclusively on mothers (Foshee and Hollinger 1996). However, scholarship on fatherhood and fathers' influences on children has increased over the past three decades as a result of two major changes in families. First, as an increasing number of mothers have gained employment outside the home, there has been an ideological shift so that fathers are expected to increase their participation in housework and childcare inside the home (Amato 1998; Harris, Furstenberg, and Marmer 1998). Although this ideological change has not necessarily been followed by a substantial change in men's behavior (Amato 1994), this shift did encourage researchers to become interested in the role of fathers in families. Second, the incidence of divorce has increased and many children will live in a single-parent home at some point in their lives. As a result, scholars are increasingly interested in changes in family structure and frequently examine nonresident fatherhood and stepfatherhood (Amato 1994; Harris et al. 1998). These changes in families have created a need for better understanding of fathers' roles in families, and how fathers influence their children's lives.

There are two competing views researchers hold regarding fathers' effects on children. One view is that fathers are rather insignificant to children and make little difference in child outcomes beyond their economic contributions to the family (Crockett, Eggebeen, and Hawkins 1993; Hawkins and Eggebeen 1991). The opposing view argues that fathers have a substantial influence on several child outcomes. These researchers argue that although fathers spend significantly less time with their children than mothers (e.g. Aldous, Mulligan, and Bjarnason 1998; Hochschild 1989; Lennon and Rosenfield 1994; Paulson and Sputa 1996; Ruddick 1992),
active fathering and a close father-child relationship are related to several positive child outcomes, such as academic and occupational achievement, fewer depressive symptoms, lesser delinquency, and fewer behavioral problems (Amato 1994; Amato and Rezak 1994; Furstenberg and Harris 1993; Harris et al. 1998; Marcus and Betzer 1996; Silverstein 1996; Zimmerman, Salam, and Maton 1995).

In this paper, I seek to clarify the effect of father involvement on young adult offspring's well-being. In particular, I will examine how the closeness of the father-child relationship and the amount of time fathers spend with their children influence several measures of offspring well-being. It is currently unclear whether fathers have a significant effect on child well-being net of their monetary contributions, and it is also unclear whether fathers' influence is independent of mothers' influence. This project will control for paternal income and will consider the relative effects of mothers to determine if fathers have an independent influence on child well-being. In addition, previous research has not fully established whether fathers affect male and female children differently. I will address this issue by examining fathers' relative influence on both sons' and daughters' well-being.

This study improves on several weaknesses in prior research on father involvement and offspring well-being. Many studies examine the influence of fathers on child outcomes based on whether or not the father is "present" or "not present" (e.g., Crockett et al. 1993), or examine only family structure (Hawkins and Eggebeen 1991; Thomson, Hanson, and McLanahan 1994). These studies fail to address what fathers' "presence" means in terms of paternal interactions with children. It may be that the closeness of the father-child relationship and the time fathers spend with their children affect child outcomes beyond fathers' mere "presence" in the home. When research does examine the nature of paternal interactions with children, it tends to focus
on either closeness between fathers and children or the amount of time fathers spend with children, but rarely examines the impact of both closeness and time spent (Amato 1994). This study addresses this issue by including measures of closeness of the father-child relationship and of time fathers spend with children.

Also, many prior studies of paternal influence on child outcomes use cross-sectional data (Crockett et al. 1993; Furstenberg, Morgan, and Allison 1987; Harris and Morgan 1991). This research project uses longitudinal data from both waves of the National Survey of Families and Households (NSFH) to draw conclusions regarding the influence of paternal participation on offspring well-being.

Finally, many researchers measure the closeness of the father-child relationship or determine how much time fathers spend with their children based on mothers' reports (e.g. Furstenberg et al. 1987), offspring's reports (e.g. Amato 1994; Felson and Zielinski 1989; Harris et al. 1998), or a combination of mothers' and offspring's reports (e.g. Harris and Morgan 1991; see Smith and Morgan 1994). Fathers' perceptions of their relationships with children are rarely measured, which prevents researchers from gaining a more complete understanding of fatherchild relationships (Amato 1994; Marsiglio 1993). In addition, mothers' and children's reports of closeness are not always consistent, suggesting it may be necessary to measure closeness based on more than just the mothers' or child's perceptions of the relationship (Smith and Morgan 1994). The present study uses fathers' reports of closeness with children and the amount of time they spend with children.

## Theoretical Background

As previously mentioned, there are two contrary views of fathers' influence on child well-being. One perspective argues that fathers matter little in the outcomes of their children.

Crockett, Eggebeen, and Hawkins (1993) demonstrate that after controlling for socioeconomic status, the bivariate negative relationship between father presence and behavioral problems in children is not significant. They suggest that any influence of father presence on child outcomes is not the result of fathering but the result of fathers' economic contribution. Furthermore, Hawkins and Eggebeen (1991) demonstrate that fathers have a marginal influence on children's cognitive development. Also, many studies show that children do not necessarily benefit from contact with their fathers following divorce (Clark and Barber 1994; Furstenberg et al. 1987; King 1994). However, Furstenberg et al. (1987) demonstrate that there is a negative relationship between the level of child support payment and children's behavioral problems, again suggesting that any contribution fathers make to their children's well-being is the result of their economic support. Despite these studies, most research suggests that fathers make a substantial contribution to child well-being, beyond their income. This body of literature is discussed below.

## Mothers' Versus Fathers' Effects on Child Well-Being

It is well documented that mothers continue to be more involved with children than fathers (Aldous, Mulligan, and Bjarnason 1998; Hochschild 1989; Lennon and Rosenfield 1994; Paulson and Sputa 1996; Ruddick 1992). Despite differences in maternal and paternal participation with children, most research on the influence of parents on child well-being suggests that father involvement has a significant impact on children (Amato 1994; Amato 1998; Amato and Booth 1991; Baharudin and Luster 1998; Barnett, Kibria, Baruch, and Pleck 1991; Barnett, Marshall, and Pleck 1992; Doherty, Kouneski, and Erickson 1998; Felson and Zielinski 1989; Marsiglio 1993; Wenk, Hardesty, Morgan, and Blair 1994; Young, Miller, Norton, and Hill 1995). However, it is not clear if fathers have an influence on child well-being net of
mothers' influence. Some studies that demonstrate the influence of fathers on children's wellbeing do not control for the effects of mothers, providing potentially false conclusions that fathers make substantial contributions to child well-being (Amato 1998). For example, one study shows that the quality of the father-child relationship is significantly related to daughters' psychological distress only when the quality of the mother-child relationship is not controlled (Barnett et al. 1991).

Even when researchers examine the relative influence of both mothers' and fathers' effects on child well-being, findings are unclear. Several studies demonstrate that fathers' significant impact on child well-being diminishes when mothers' participation is controlled. Amato (1994) shows that when mothers' and fathers' closeness are examined separately, they both have a significant influence on children's self-esteem. However, when mothers' and fathers' closeness are considered simultaneously, the relative impact of fathers' closeness fails to reach significance. He argues that this may be because mothers spend more time with children, giving them a greater opportunity to influence children's self-esteem.

Other research shows that fathers and mothers do, in fact, have independent effects on child well-being. Sons' level of distress is significantly influenced by the quality of the fatherchild relationship, even after controlling for the quality of the mother-child relationship (Barnett et al. 1992), and children's self-esteem and life satisfaction benefit from positive relationships with both fathers and mothers (Amato 1994; Amato 1998; Felson and Zielinski 1989; Doherty et al. 1998; Young, Miller, Norton, and Hill 1995). Furthermore, children's reading scores are higher when fathers are present, controlling for maternal effects (Baharudin and Luster 1998). Amato (1994) also demonstrates that children's life satisfaction, happiness, and psychological distress are influenced equally by mothers and fathers.

The mixed results for the relative influence of mothers' and fathers' effects on child wellbeing indicate that further examination is necessary. This study uses both mothers' and fathers' reports of closeness with children and time spent with children to determine whether mothers and fathers have independent effects on the well-being of young adult children.

## Factors Influencing Paternal Participation and Offspring Well-Being

Given the evidence that paternal participation is likely to influence child well-being, it is necessary to consider the factors associated with paternal participation that may also influence child outcomes. Several characteristics of the child, father, mother, and the family as a whole are likely to influence the level of paternal participation and the subsequent well-being of offspring. Child Characteristics Influencing Paternal Participation and Well-Being

The gender, age, marital status, and occupational status of offspring influence the amount of contact children have with their fathers, the level of closeness between fathers and children, and well-being (Doherty et al. 1998; Harris and Morgan 1991; Lye 1996; Marsiglio 1991; Umberson 1992). There are substantial differences in the amount of time fathers spend with male and female children. When children are young, fathers have a tendency to spend significantly more time with sons than daughters (Doherty et al. 1998; Harris et al. 1998; Harris and Morgan 1991; Marsiglio 1991). Some argue that the reason for this is because fathers feel better able to relate to sons and communicate with them (Doherty et al. 1998). As adults, daughters have a tendency to have less contact with fathers than mothers, though daughters have more contact with both parents than sons do (Lye 1996; Umberson 1992). Adult daughter-mother relationships are believed to be much closer than adult daughter-father, adult son-mother, or adult son-father relationships (Lye 1996).

Although one would expect fathers to have a greater influence on sons' well-being than daughters' well-being due to greater involvement with sons, most research shows no difference in the fathers' influence on sons' or daughters' well-being. It appears that paternal participation benefits male and female children's well-being similarly (Amato 1994; Amato 1998; Brendgen, Vitaro, and Bukowski 1998; Young et al. 1995). Despite this evidence, other studies show that the relative influence of fathers and mothers on child outcomes depends on the gender of the child (Barnett et al. 1991; Barnett et al. 1992; Felson and Zielinski 1989; Doherty et al. 1998). Two related studies of adult child well-being show that daughters' well-being is more influenced by mothers than fathers, while sons are influenced equally by mothers and fathers (Barnett et al. 1991; Barnett et al. 1992). However, most studies suggest that although mothers' and fathers' effects on children may differ, fathers are likely to influence male and female children similarly.

In addition to gender, the child's age, marital status, and occupational status influence the level of paternal participation and offspring well-being. As children age, fathers become decreasingly involved in their lives (Doherty et al. 1998; King 1994; Marsiglio 1991). Also, as adult children gain a sense of identity outside the family through marriage and work, the influence of fathers on children's well-being diminishes (Amato 1994; Roberts and Bengtson 1993; Umberson 1992). Although the level of involvement between fathers and children decreases as children age and the level of influence fathers have on children also decreases, there is substantial evidence that fathers continue to have an influence on child well-being even when the children are adults (Amato 1994; Amato and Booth 1991; Barnett et al. 1992; Barnett et al. 1991; Lye 1996; Roberts and Bengtson 1993; Umberson 1992). Children's gender, age, marital status, and occupational status are potential confounds since they covary with paternal participation and offspring well-being, so they are controlled in this study.

## Family Characteristics Influencing Paternal Participation and Well-Being

Characteristics of the family as a whole are likely to contribute to father involvement and offspring well-being. One of the most salient influences on the level of paternal participation is the level of conflict between mothers and fathers (Amato 1991; Amato, Loomis, and Booth 1995; Amato and Booth 1991; Amato and Rezac 1994; Doherty et al. 1998; Furstenberg and Teitler 1994; Rogers 1996). The ability of fathers to maintain strong ties to their children depends largely on the quality of the mother-father relationship. Some researchers claim that when there is a large amount of conflict between mothers and fathers, fathers are likely to emotionally distance themselves from their children (Doherty et al. 1998). Furthermore, when there is a great deal of conflict between parents, and children are frequently exposed to it, children may feel strained by the conflict which may negatively affect their well-being (Amato 1991; Amato, Loomis, and Booth 1995; Amato and Booth 1991; Amato and Rezac 1994; Furstenberg and Teitler 1994; Rogers 1996).

A related factor that influences paternal participation and child well-being is family structure. Fathers' participation in their children's lives decreases following divorce, and the pattern is toward less contact as time since divorce increases (Amato and Booth 1991; Lye 1996). Children who experience divorce tend to have relatively poor relationships with their fathers (Kaufman and Uhlenberg 1998; Lye 1996) and lower levels of well-being throughout the life course (Amato and Booth 1991; Furstenberg and Tietler 1994). Amato and Booth (1991) find that children whose relationships with fathers weakened following divorce had especially low levels of well-being, while children who maintained close relationships with their fathers following divorce did not differ significantly from children who remained in happy, intact marriages. Amato (1994) demonstrates that the strength of the association between closeness of
the father-child relationship and child well-being declines following divorce. That is, divorce may weaken the impact of the father-child relationship on child well-being. Furthermore, following divorce women and children often experience a decline in their standard of living, which is likely to influence child well-being (Lye 1996; Thomson et al. 1994). However, there is also evidence that it is worse for child well-being to live in a context with high levels of conflict than to experience divorce (Amato and Booth 1991; Amato et al. 1995). The relationship between marital conflict, family structure, and child well-being needs further examination. In this study, I control for these factors to get a better understanding of their influence on paternal participation and child well-being.

## Fathers' and Mothers' Characteristics Influencing Paternal Participation and Well-Being

Characteristics such as education and employment of fathers and mothers also influence paternal participation and child well-being. Daughters' and sons' level of education, occupational status, grade point average, and overall well-being are positively influenced by fathers' education (Amato 1998). Furthermore, fathers with more education are more likely to read to their children and help them with homework, which may foster growth in the father-child relationship and promote well-being in children (Marsiglio 1991). Children's academic achievement is also related to mother's education (Baharudin and Luster 1998).

As noted above, fathers' employment and income contribute substantially to child outcomes; it is often asserted that fathers' income is the primary way they influence children's well-being (Crockett et al. 1993; Hawkins and Eggebeen 1991; Furstenberg et al. 1987). There is also evidence that father-child relationships weaken when the father is not viewed as a successful breadwinner because he distances himself from the family (Doherty et al. 1998). Thus, fathers' employment status and income could affect the time they spend with children, the
level of closeness with children, and offspring well-being. Also, both the level of paternal involvement and child well-being are likely to be influenced by maternal employment, as fathers often make slight changes in their involvement with children when mothers are employed (Marsiglio 1993).

This study controls for fathers' education, fathers' and mothers' employment status, and family income to clarify the role these factors play in father involvement and child well-being.

## Hypotheses:

Based on the available literature, several hypotheses are formed to examine the relationship between paternal participation and the well-being of young adult offspring.

Hypothesis 1: Net of the time mothers spend with their children, the time fathers spend with offspring at Time 1 has a positive effect on offspring well-being at Time 2.

Hypothesis 2: This is conditioned on the gender of the child such that net of the time mothers spend with their children, the time fathers spend with children at Time 1 will have a greater effect on the well-being of sons than daughters..

Hypothesis 3: Net of the closeness of the mother-child relationship, the closeness of the fatherchild relationship at Time 1 has a positive effect on offspring at Time 2.

Hypothesis 4: This is conditioned on the gender of the child such that net of the closeness between mothers and children, the closeness of the father-child relationship at Time 1 will have a greater effect on the well-being of sons than daughters.

## Methods

## Data

Data from the National Survey of Families and Households (NSFH) are used to test these hypotheses. The NSFH is comprised of two waves. Wave I, collected in 1987-1988, is a
nationally representative probability sample of 13,007 respondents. Blacks, Puerto Ricans, Mexican Americans, single-parent families, families with step-children, cohabiting couples, and recently married people were oversampled. An adult from each selected household was chosen randomly to be the primary respondent. Wave II, collected in 1992-1994, is a follow-up study of the original respondents. Additionally, Wave II includes telephone interviews conducted with focal children who were aged 13-18 during Wave I and aged 18-23 in Wave II ( $\mathrm{N}=1090$ ). This group of focal children comprises the sample analyzed for this study. Due to the large number of confounding factors of divorce and/or remarriage that are associated with paternal participation and offspring well-being, only children whose parents were still living together in Wave I of the NSFH are examined. There were 856 focal children aged 13-18 in Wave I who lived with both biological parents, and 526 of these focal children were interviewed in Wave II. Respondents missing data on any of the measures for the dependent variable are deleted, leaving 504 cases with valid data on all of the child well-being measures.

## Measures

## Dependent Variables

The dependent variable of interest in this study is the well-being of the focal children, aged 18-23, as reported from Wave II of the NSFH. Three scales are used to measure offspring well-being: life satisfaction, depression, and self-efficacy. The life satisfaction scale consists of two items measuring global satisfaction and eight items measuring satisfaction with specific areas of life. The global satisfaction items are (1) "On the whole, I am satisfied with myself," (with response categories of strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree) and (2) "Taking all things together, on a scale from 0 to 10 , where 0 means really bad and 10 means absolutely perfect, you would you say things are for you these days."

For the eight items measuring satisfaction with specific areas of life, respondents were asked, on a scale from 0 to 10 where 0 is extremely dissatisfied and 10 is extremely satisfied, how satisfied they are with the following things: (1) what they have achieved in school, (2) their prospects for career advancement in the future, (3) their financial situation, (4) their leisure time, (5) their friendships, (6) their health, (7) their love life, (8) their physical appearance. Higher values on this scale indicate greater life satisfaction. These items are standardized and summed to form the scale. The Cronbach's alpha value for this scale is .76 .

Depression is measured by the sum of ten items where respondents were asked to indicate the number of days in the last week they (1) could not shake off the blues, even with help from family or friends, (2) have trouble keeping their mind on what they were doing, (3) felt that everything they did was an effort, (4) sleep restlessly, (5) felt lonely, (6) felt sad, (7) felt they could not get going, (8) felt irritable, or likely to fight or argue, (9) felt like telling someone off, (10) felt angry or hostile for several hours at a time. Higher values indicate greater depression. The Cronbach's alpha value for the depression scale is .82 .

Finally, the self-efficacy scale is comprised of six questions measuring agreement with the following items: (1) "I am able to do things as well as other people," (2) "There is really no way I can solve some of the problems I have," (3) "Sometimes I feel that I'm being pushed around in life," (4) "I can do just about anything I really set my mind to do," (5) "I have little control over the things that happen to me," (6) "I feel hopeful about the future." Response categories range from strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree. Responses were recoded so that higher values indicate greater self-efficacy. The variables are then summed. The reliability for this scale is .70 .

## Independent Variables

The amount of time parents spend with their children and the closeness of the parentchild relationship are the primary independent variables in this study. The amount of time fathers and mothers spend with their children at Wave I is measured by their responses to four questions regarding how often they spend time with their children performing the following activities: (1) in leisure activities away from home (picnics, movies, sports, etc.), (2) at home working on a project or playing together, (3) having private talks, and (4) helping with reading or homework. Response categories include never or rarely, once a month or less, several times a month, about once a week, several times a week, and almost every day. The scale reliability is .75 for fathers and .71 for mothers. These items are summed and higher values indicate more time spent with children.

In a comprehensive review of literature on fatherhood, Doherty et al. (1998) conclude that the best context for involved fathering to occur is within a happy marriage. Fathers tend to distance themselves from children when they do not have a strong relationship with the mother. On the contrary, mothers' relationships with children are not affected by the quality of the marital relationship (Doherty et al. 1998). Given this, if the scale for time spent with children is valid, one would expect marital happiness to be positively associated with the time fathers spend with children but not associated with the time mothers spend with children. To test the construct validity of this measure, I examine the zero-order correlations between fathers' and mothers' respective perceptions of marital happiness and reports of time spent with children. The correlation between fathers' perception of marital happiness and the scale for time fathers spend with children is .10 , as expected. Also as expected, there is no correlation between marital happiness and the time mothers spend with children (.03). To further test the construct validity of this scale, I perform simple linear regression of time parents spend with children on marital
happiness. As previous literature indicates, marital happiness is a significant predictor of time fathers spend with children $(\mathrm{b}=.396, \mathrm{t}=2.296, \mathrm{p}=.02)$, but not a significant predictor of time mothers spend with children $(\mathrm{b}=.148, \mathrm{t}=.785, \mathrm{p}=.43)$. These findings suggest that this scale is a valid measurement for time parents spend with children.

The closeness of the father-child and mother-child relationships are measured by parents' responses from Wave I regarding the quality of their relationships with their children. The parents were asked how they would describe their relationship with each of their children and were given a range of choices between 1 and 7 , with 1 classified as "very poor" and 7 classified as "excellent."

Several child, family, and parental characteristics are controlled in this study. As discussed above, these factors influence paternal participation and child well-being. Child's gender and age at Wave I are controlled, as well as their marital status and occupational status from Wave II. Child's marital status is a dummy variable coded 0 for never married and 1 if they have ever been married. Child's occupational status consists of a series of dummy variables that indicated whether the child is in school (coded 1 for in school), employed (coded 1 for employed), or employed and in school (coded 1 for employed and in school). Family and parental characteristics such as change in family structure between Wave I and Wave II (coded 1 if the parents have separated by Wave II and 0 if they have not separated), family income at Wave I, mothers' and fathers' occupational status at Wave I (coded 0 for employed and 1 for unemployed), fathers' education, and marital conflict between parents at Wave I are also controlled. Marital conflict between parents is measured by the sum of six questions from Wave I of the NSFH regarding how often the couple disagrees about (1) household tasks, (2) money,
(3) spending time together, (4) sex, (5) in-laws, and (6) the children. The reliability for this scale is .75 for fathers and .78 for mothers. ${ }^{1}$

Analyses will be performed using ordinary least squares (OLS) Regression, as the dependent variables are interval level. Also, continuous independent variables used in interaction terms are centered to reduce multicollinearity and provide more accurate results.

## Results

As shown in Table 1, male and female offspring have similar levels of life-satisfaction and self-efficacy. However, females tend to have higher levels of depression than males, though the difference is not significant $(\mathrm{t}=1.74, \mathrm{p}=.08)$. Mothers spend significantly more time with their children than fathers $(\mathrm{t}=11.28, \mathrm{p}=.0001)$, and have slightly higher levels of closeness with children than fathers $(\mathrm{t}=2.86, \mathrm{p}=.004)$. The average age of the offspring is 20.5 years in Wave II, nearly half are female (49.3\%), and 19 percent have ever been married. Approximately 23 percent of the children are in school, nearly 45 percent are employed, one-quarter are in school and employed, and 8 percent are neither employed nor in school. Nearly 10 percent of parents separated between waves of the NSFH, and the average family income is $\$ 46,819$ in Wave I. Fathers have an average of 13.29 years of education, and approximately 5 percent of fathers and about one-quarter ( 25.6 percent) of mothers were unemployed during Wave I. The average reported marital conflict in Wave I does not significantly differ for fathers and mothers $(\mathrm{t}=1.54$, $\mathrm{p}=.13$ ).

Multivariate Analyses

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## Time Fathers Spend with Children and the Closeness of the Father-Child Relationship

Analyses were performed to determine how similar or different time spent with children and the closeness of the father-child relationship are as measures of paternal participation. If these characteristics of paternal participation are very similar, it doesn't matter that studies often use one and do not include the other, but if they are different, they may affect offspring wellbeing differently. Table 2 shows the results of time fathers spend with children regressed on several child and family characteristics, as well as the closeness of the father-child relationship. Without controlling for the closeness of the father-child relationship, child's gender and age are significant predictors of time fathers spend with children, though gender is only marginally significant. Fathers spend less time with female children and older children. In addition, fathers' education is positively associated with time spent with children; more educated fathers tend to spend more time with children. Model 2 shows that the closeness of the father-child relationship is also a significant, positive predictor of the time fathers spend with children, and child's gender and age and fathers' education remain significant. These findings are similar to those found in prior research that more educated fathers spend more time with children, and fathers spend more time with sons and younger children than daughters and older children. Contrary to other findings, fathers' employment status, family income, and marital conflict are not significantly associated with the time fathers spend with children.

As shown in Table 3, fathers' views of marital conflict are significant negative predictors of the closeness of the father-relationship. As the amount of conflict in the marriage increases, fathers tend to have less close relationships with children. When time fathers spend with children is entered into the model, it is also highly associated with closeness of the relationship. Furthermore, child's gender becomes marginally significant showing that fathers tend to have
closer relationships with daughters than sons. These findings are also similar to those from prior research.

It is important to note that different characteristics of the child and family predict time fathers spend with children and the closeness of the father-child relationship. Though marital conflict reduces fathers' perceptions of how close they are with children, it does not affect the amount of time they spend with children. Fathers' education is also a significantly associated with the amount of time spent with children but not associated with the closeness of the fatherchild relationship. Furthermore, child's gender seems to be a more consistent predictor of the time fathers spend with children than how close fathers are with them. This demonstrates the necessity of distinguishing between time spent with children and closeness with children when examining paternal participation. Though time fathers spend with children and closeness with children are correlated with one another ( $\mathrm{r}=.35 ; \mathrm{p}=.0001$ ), it seems as though they are separate and distinct measures and their effects on child outcomes should be examined independently.

## Life Satisfaction

Table 4 shows the results of the regression equations that examine the relationship between fathers' time spent and closeness of the father-child relationship on offspring life satisfaction. Model 1 shows a significant, positive association between the amount of time fathers spend with children at Wave I and life satisfaction. Model 2 shows that this relationship remains significant even after controlling for the time mothers spend with children. Interestingly, the time mothers spend with children does not significantly predict offspring life satisfaction. When the interaction between time fathers spend with children and child's gender is entered in Model 3, the interaction term shows that the effect of time fathers spend with children on life satisfaction is larger for female children than male children. That is, female children
benefit more from spending time with their fathers than male children do. As shown in Model 4, the closeness of the father-child relationship also has a positive effect on offspring life satisfaction, and this relationship remains significant after controlling for the closeness of the mother-child relationship (Model 5). However, there is no significant interaction between the closeness of the father-child relationship and the gender of the child. This suggests that the effect of the closeness of the father-child relationship on life satisfaction is not significantly different for male and female children.

When time fathers spend with children and the closeness of the father-child relationship, are both entered into the model (Model 7), only time spent with children significantly affects offspring life satisfaction. When both mothers' and fathers' time spent with children and closeness with children are in the model, only the time fathers spend with children is significantly, positively associated with offspring life-satisfaction. Similarly, when both fathers' time spent with children and closeness with children are entered along with their respective interaction terms with the child's gender, only the time fathers spent interacts with gender. Again, the time fathers spend with children has a greater positive effect on female offspring's life satisfaction than male offspring's. It is clear that time fathers spend with children and the level of closeness with children interact differently with the child's gender, and have differing effects on the life satisfaction of children.

Contrary to many findings, parental separation, fathers' education, family income, parental unemployment, and marital conflict do not significantly affect the life satisfaction of offspring. It is possible that as time progresses and children obtain more statuses outside of the family, these factors diminish in importance in predicting life satisfaction. Since the children are
now adults, these factors may not be as salient as they may have been while the offspring were growing up, therefore they have little influence on long-term well-being.

Overall, consistent with prior research, the results show that paternal participation has a significant positive effect on life satisfaction of offspring, net of the effects of mothers. However, contrary to the findings of other studies, female children benefit more from spending time with their fathers than male children, and male children benefit more from spending time with their mothers than female children. Also, it does not appear that the closeness of the fatherchild relationship differs for male or female children.

## Self-Efficacy

Table 5 shows the results for the influence of paternal participation on offspring selfefficacy. Fathers' time spent with children marginally affects offspring self-efficacy, and this relationship does not change when mothers' time spent with children is entered into the model. As indicated in Model 3, the time fathers spend with children does not affect sons' and daughters' self-efficacy differently. Model 4, however, indicates that the closeness of the fatherchild relationship is positively associated with offspring self-efficacy. This relationship remains after controlling for the closeness of the mother-child relationship. The closeness of the fatherchild relationship does not affect sons' and daughters' self-efficacy differently, as indicated in Model 6.

When both time spent and closeness with children are simultaneously entered in Model 7, the closeness of the father-child relationship appears to be the more important predictor of offspring self-efficacy. Similarly, when both mothers' and fathers' time spent with children and the closeness of the parent-child relationship are all in the model, only fathers' closeness with children is a significant predictor of children's self-efficacy. Note that this is different than the
findings for life satisfaction, where time fathers spend with children is the more important predictor of offspring well-being. Neither of the measures of paternal participation interact with the gender of the child to affect self-efficacy. Again, it seems that paternal participation has a significant, positive effect on offspring self-efficacy, though the effects are not as consistent as they are for life satisfaction.

## Depression

Table 6 shows the OLS regression results for time fathers spend with children and the closeness of the father-child relationship on offspring depression. Similar to the effects on life satisfaction, time fathers spend with children significantly reduces depression in offspring (Model 1). When controlling for the time mothers spend with children, the effect of fathers' time spent decreases slightly, but remains marginally significant. Also similar to the results for life satisfaction, Model 3 shows that the time fathers spend with children has a significant interaction with the gender of the child such that greater time spent reduces daughters' depression more so than sons'. The closeness of the father-child relationship does not appear to have an effect on children's depression. Mothers' closeness with offspring also does not affect depression. However, there is a marginally significant interaction between the closeness of the father-child relationship and child's gender. The direction is such that the closeness of the father-child relationship reduces daughters' depression more than sons'. When both fathers' time spent and closeness are entered into Model 7, neither appears to significantly affect depression, and this is also true for mothers, as shown in Model 8. Again, Model 9 indicates that the time fathers spend with children interacts with the gender of the child such that greater time spend with children reduces daughters' depression more than sons'. Dissimilar from the results on life satisfaction and self-efficacy, parental separation between waves significantly increases depression in
offspring. This finding is consistent across all models shown in Table 6, and supports findings from prior research.

The findings show that time fathers spend with children is more consistently related to depression than the closeness of the father-child relationship, particularly when examining the interaction with gender. As was the case with life satisfaction, time fathers spend with children reduces female children's depression more than sons. Parental separation between waves also emerges as an important predictor of depression in offspring.

## Discussion

The results of this study suggest that fathers do indeed have an effect on the well-being of offspring, and these effects last through early adulthood. Time fathers spend with children during adolescence is significantly associated with the greater life satisfaction, lower depression, and greater self-efficacy of offspring in early adulthood. Furthermore, fathers' effects remain significant after controlling for their financial contributions, the time mothers spend with children, and the closeness of the mother-child relationship, showing that fathers have an independent effect on child outcomes. This supports the two primary hypotheses of this study that time fathers spend with children and the closeness of the father-child relationship positively influence child well-being net of mothers' influence. It may seem surprising that mothers do not appear to have a significant effect on the well-being of offspring. However, prior research by Gecas and Schwalbe (1986) that shows that fathers have a greater influence on offspring's selfesteem than mothers. They believe that this is because fathers have lesser participation with children than mothers, so the small amount of participation there is makes any paternal participation more memorable to children, creating a greater effect on their self-esteem.

It also appears that fathers tend to have a greater affect on daughters' well-being than sons'. Although fathers tend to spend more time with sons than daughters, daughters benefit, in terms of life satisfaction and depression, more from the time their fathers spend with them than sons do. Although these results are contrary to the hypotheses listed above and may seem counterintuitive, other researchers have produced similar results (Barber and Thomas 1986; Gecas and Schwalbe 1986). These studies demonstrate that parental participation has a greater effect on daughters' self-esteem than sons'. However, Gecas and Schwalbe (1986) also find that sons' self-esteem was affected by parental control more so than daughters'. It is possible that daughters are more sensitive to attention from their parents (possibly their fathers in particular since they receive less attention than male children do), so when fathers are involved, it results in a greater effect on the well-being of female children. Also, since male children are not socialized to get the same intrinsic rewards out of maintaining nurturing relationships with their families, their well-being may not be as easily influenced by paternal participation (Gecas and Schwalbe 1986). However, it is important to note that the influence of the time spent with children does not differ for male and female children's self-efficacy, and the effect of closeness of the fatherchild relationship on well-being does not differ for male and female children.

Prior research shows that family structure is associated with well-being such that children from two-parent families have greater well-being than children from other family forms. These results show that parental separation significantly increases depression, but do not show a significant association between separation and life satisfaction or self-efficacy for offspring. Fathers' education is also a significant predictor of self-efficacy, but not depression or life satisfaction.

These findings also show that parental conflict, family income, and parental unemployment are not associated with young adult children's well-being. It is possible that the effects of these variables diminish as respondents age and have less contact with their parents. It is also important to note that the lack of significance for family income suggests that fathers' income is not the primary contribution they make to their children's well-being.

Finally, this study demonstrates the theoretical importance of distinguishing between time spent and closeness when examining paternal participation. These two factors, though used interchangeably in the literature on the effects of paternal participation on child outcomes, have different antecedents and differ in their effects on offspring well-being. Future research could help determine why or how these variables differ in their consequences on children.

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## Table 1: Descriptive Statistics ${ }^{2}$

|  | Mean or percent | Standard Deviation |
| :---: | :---: | :---: |
| Dependent Variables |  |  |
| Life Satisfaction-overall | 71.49 | 12.06 |
| Male | 71.10 | 12.33 |
| Female | 71.91 | 11.90 |
| Self-Efficacy | 24.57 | 3.62 |
| Male | 24.56 | 3.54 |
| Female | 24.59 | 3.70 |
| Depression | 14.36 | 13.02 |
| Male | 13.94 | 12.28 |
| Female | 14.79 | 13.70 |
| Independent Variables |  |  |
| Time Spent |  |  |
| Fathers | 12.78* | 4.58 |
| Mothers | 15.14 | 4.86 |
| Closeness |  |  |
| Fathers | 6.14* | 1.18 |
| Mothers | 6.26 | 1.07 |
| Control Variables |  |  |
| Child Characteristics |  |  |
| Percent Female | 49.28 |  |
| Age | 20.50 | 1.86 |
| Percent Ever Married | 19.15 |  |
| Child's Occupational Status |  |  |
| Percent in School | 22.71 |  |
| Percent Employed | 44.66 |  |
| Percent in School and Employed | 24.70 |  |
| Neither Employed nor in School | 7.94 |  |
| Family Characteristics |  |  |
| Percent Separated between |  |  |
| Wave I and Wave II | 9.81 |  |
| Family Income (in dollars) | 46819 | 63360 |
| Parent Characteristics |  |  |
| Fathers' Education | 13.55 | 3.26 |
| Percent not Employed |  |  |
| Mothers | 25.66 |  |
| Fathers | 5.24 |  |
| Marital Conflict |  |  |
| Fathers | 11.49 | 4.53 |
| Mothers | 11.10 | 4.81 |

* Paired T-Test indicates significant difference between mothers and fathers.

[^1]Table 2: OLS Regression Results for Time Fathers Spend with Children ${ }^{3}$

|  |  |  |
| :--- | :--- | :--- |
| Independent Variable | Model 1 | Model 2 |
| Fathers' Closeness |  | $1.35^{* * *}$ |
| Child's Gender ${ }^{4}$ | $.55 \dagger$ | $.68^{*}$ |
| Child's Age | $-.46^{* * *}$ | $-.40^{* * *}$ |
| Father Unemployed | .55 | .52 |
| Family Income | .00 | .00 |
| Fathers' Education | $.17^{* *}$ | $.17^{* *}$ |
| Fathers' Marital Conflict | -.04 | .03 |
| Mothers' Marital Conflict | -.03 | -.01 |
|  |  | .16 |
| Adjusted $\mathrm{R}^{2}$ | .05 |  |

Table 3: OLS Regression Results for Closeness of Father-Child Relationship

|  |  |  |
| :--- | :--- | :--- |
| Independent Variable | Model 1 | Model 2 |
|  |  | $.09^{* * *}$ |
| Fathers' Time Spent | -.09 | $-.14 \dagger$ |
| Child's Gender | $-.04 \dagger$ | .00 |
| Child's Age | .02 | .03 |
| Father Unemployed | .00 | .00 |
| Family Income | .00 | -.01 |
| Fathers' Education | $-.05^{* * *}$ | $-.05^{* * *}$ |
| Fathers' Marital Conflict | -.02 | -.01 |
| Mothers' Marital Conflict | .05 | .16 |
| Adjusted $\mathrm{R}^{2}$ |  |  |

[^2]Table 4: OLS Regression Results for Time Spent and Closeness with Offspring on Life Satisfaction ${ }^{1}$

| Independent Variable | Effects of Time Spent |  |  | Effects of Closeness |  |  | Effects of Time and Closeness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 |
| Fathers' Time Spent | .35** | . $34 * *$ | .63*** |  |  |  | .28* | .28* | . 62 *** |
| Fathers' Closeness |  |  |  | 1.19* | 1.11* | . 84 | . 81 | . 75 | . 13 |
| Mothers' Time Spent |  | . 03 |  |  |  |  |  | . 01 |  |
| Mothers' Closeness |  |  |  |  | . 25 |  |  | . 22 |  |
| Child's Gender ${ }^{2}$ | -. 92 | -. 92 | -. 90 | -. 62 | -. 63 | -. 63 | -. 80 | -. 81 | -. 77 |
| Child's Age | -. 32 | -. 31 | -. 32 | -. 42 | -. 41 | -. 41 | -. 31 | -. 30 | -. 30 |
| Child Ever Married | . 90 | . 90 | 1.06 | . 70 | . 65 | . 66 | . 78 | . 74 | . 86 |
| Child's Time Use ${ }^{3}$ |  |  |  |  |  |  |  |  |  |
| Employed | 2.34 | 2.33 | 2.26 | 2.18 | 2.11 | 2.09 | 2.11 | 2.04 | 1.72 |
| In School | 5.65** | 5.62** | 5.71** | 5.42** | 5.32** | 5.34** | 5.43** | 5.33** | 5.24** |
| Both | 4.42* | 4.38* | 4.79* | 4.18* | 4.07* | 4.03* | 4.19* | 4.08* | 4.24* |
| Parental Separation | -. 30 | -. 35 | -. 43 | -. 25 | -. 29 | -. 22 | -. 20 | -. 25 | -. 26 |
| Father unemployed | -. 64 | -. 63 | -1.32 | -. 53 | -. 56 | -. 42 | -. 63 | -. 65 | -1.25 |
| Mother unemployed | -. 69 | -. 72 | -. 58 | -. 71 | -. 71 | -. 72 | -. 79 | -. 81 | -. 70 |
| Family Income ${ }^{4}$ | . 01 | . 01 | . 01 | . 01 | . 01 | . 01 | . 01 | . 01 | . 01 |
| Fathers' Education | . 07 | . 07 | . 04 | . 13 | . 13 | . 14 | . 08 | . 08 | . 06 |
| Fathers' Marital Conflict | -. 15 | -. 15 | -. 13 | -. 10 | -. 11 | -. 11 | -. 11 | -. 12 | -. 08 |
| Mothers' Marital Conflict | . 00 | . 00 | -. 01 | . 01 | . 02 | . 02 | . 01 | . 02 | . 02 |
| Fathers' Time x Gender of Child |  |  | -.56* |  |  |  |  |  | -.75** |
| Fathers' Closeness x Gender of Child |  |  |  |  |  | . 59 |  |  | 1.50 |
| Adjusted $\mathrm{R}^{2}$ | . 04 | . 04 | . 05 | . 03 | . 03 | . 03 | . 04 | . 04 | . 05 |
| F | $2.37 * *$ | 2.22 ** | 2.60*** | 2.21 ** | 2.08** | 2.09** | 2.40** | $2.12 * *$ | 2.68 *** |
| *** $\mathrm{p}<.001 ; * * \mathrm{p}<.01 ; * \mathrm{p}<.05 ; \dagger \mathrm{p}<.10$ |  |  |  |  |  |  |  |  |  |
| ${ }^{1} \mathrm{~N}=504$; All analyses are weighted using the individual-level sample weight. |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ Female is omitted category. |  |  |  |  |  |  |  |  |  |
| ${ }^{3}$ Neither employed nor in school is omitted category. |  |  |  |  |  |  |  |  |  |

Table 5: OLS Regression Results for Time Spent and Closeness with Offspring on Self-Efficacy ${ }^{1}$

| Independent Variable | Effects of Time Spent |  |  | Effects of Closeness |  |  | Effects of Time and Closeness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 |
| Fathers' Time Spent | . $07 \dagger$ | . $07 \dagger$ | .11* |  |  |  | . 03 | . 04 | . 08 |
| Fathers' Closeness |  |  |  | . $41 * *$ | .35* | . 60 ** | .36* | .31* | .51* |
| Mothers' Time Spent |  | -. 01 |  |  |  |  |  | -. 02 |  |
| Mothers' Closeness |  |  |  |  | . 19 |  |  | . 20 |  |
| Child's Gender ${ }^{2}$ | -. 13 | -. 14 | -. 12 | -. 06 | -. 07 | -. 05 | -. 08 | -. 09 | -. 07 |
| Child's Age | . 13 | . 13 | . 13 | . 12 | . 13 | . 12 | . $14 \dagger$ | . $14 \dagger$ | . 13 |
| Child Ever Married | . 07 | . 07 | . 10 | . 01 | -. 03 | . 03 | . 02 | -. 02 | . 06 |
| Child's Time Use ${ }^{3}$ |  |  |  |  |  |  |  |  |  |
| Employed | 1.13* | 1.14* | 1.12* | 1.04* | . $98 \dagger$ | 1.09* | 1.03* | . $98 \dagger$ | 1.04* |
| In School | $2.22^{* * *}$ | 2.23*** | 2.23*** | 2.11*** | 2.05*** | 2.16*** | 2.12*** | 2.06 *** | $2.15{ }^{* * *}$ |
| Both | 1.29* | 1.30* | 1.35* | 1.18* | 1.11* | 1.27** | 1.18* | 1.12* | 1.30* |
| Parental Separation | -. 34 | -. 33 | -. 36 | -. 30 | -. 33 | -. 32 | -. 29 | -. 29 | -. 32 |
| Father unemployed | $1.05 \dagger$ | $1.05 \dagger$ | . 93 | $1.07 \dagger$ | $1.05 \dagger$ | 1.00 | $1.06 \dagger$ | 1.02 | . 89 |
| Mother unemployed | . 01 | . 02 | . 03 | -. 02 | -. 02 | -. 01 | -. 03 | -. 02 | -. 01 |
| Family Income ${ }^{4}$ | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
| Fathers' Education | . 16 ** | .16** | . $15^{* *}$ | .17** | .17** | . $17 * *$ | . 16 ** | . $16^{* *}$ | . $16^{* *}$ |
| Fathers' Marital Conflict | -. 03 | -. 03 | -. 03 | -. 01 | -. 01 | -. 01 | -. 02 | -. 02 | -. 01 |
| Mothers' Marital Conflict | -. 01 | -. 01 | -. 01 | -. 01 | . 00 | -. 01 | -. 01 | . 00 | -. 01 |
| Fathers' Time |  |  |  |  |  |  |  |  |  |
| $x$ Gender of Child |  |  | -. 10 |  |  |  |  |  | -. 11 |
| Fathers' Closeness |  |  |  |  |  |  |  |  |  |
| $x$ Gender of Child |  |  |  |  |  | -. 33 |  |  | -. 20 |
| Adjusted $\mathrm{R}^{2}$ | . 06 | . 06 | . 06 | . 07 | . 07 | . 07 | . 07 | . 07 | . 07 |
| F | 3.30 *** | 3.07*** | 3.22*** | 3.72*** | 3.57*** | 3.57*** | 3.52 *** | 3.20*** | $3.32 * * *$ |
| *** p <.001; ** $\mathrm{p}<.01 ; * \mathrm{p}<.05 ; \dagger \mathrm{p}<.10$ |  |  |  |  |  |  |  |  |  |
| ${ }^{1} \mathrm{~N}=504$; All analyses are weighted using the individual-level sample weight. |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ Female is omitted category. |  |  |  |  |  |  |  |  |  |
| ${ }^{3}$ Neither employed nor in school is omitted category. |  |  |  |  |  |  |  |  |  |
| ${ }^{4}$ Income in thousands. |  |  |  |  |  |  |  |  |  |

Table 6: OLS Regression Results for Time Spent and Closeness with Offspring on Depression ${ }^{1}$

| Independent Variable | Effects of Time Spent |  |  | Effects of Closeness |  |  | Effects of <br> Time and Closeness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 |
| Fathers' Time Spent | -.25* | $-.22 \dagger$ | $-.63 * * *$ |  |  |  | -. 21 | -. 18 | -. 57 ** |
| Fathers' Closeness |  |  |  | -. 72 | -. 80 | -1.69* | -. 43 | -. 53 | -1.05 |
| Mothers' Time Spent |  | -. 12 |  |  |  |  |  | -. 14 |  |
| Mothers' Closeness |  |  |  |  | . 27 |  |  | . 42 |  |
| Child's Gender ${ }^{2}$ | -. 27 | -. 29 | -. 31 | -. 48 | -. 49 | -. 51 | -. 33 | -. 38 | -. 41 |
| Child's Age | $-.51 \dagger$ | -. $55 \dagger$ | $-.51 \dagger$ | -. 44 | -. 43 | -. 41 | $-.52 \dagger$ | -. $55 \dagger$ | $-.51 \dagger$ |
| Child Ever Married | 1.52 | 1.50 | 1.30 | 1.65 | 1.60 | 1.54 | 1.59 | 1.48 | 1.35 |
| Child's Time Use ${ }^{3}$ |  |  |  |  |  |  |  |  |  |
| Employed | -2.65 | -2.59 | -2.53 | -2.58 | -2.65 | -2.83 | -2.52 | -2.58 | -2.46 |
| In School | -3.38 | -3.23 | -3.45† | -3.25 | $-3.63 \dagger$ | $-3.47 \dagger$ | -3.25 | -3.25 | -3.37 |
| Both | -2.55 | -2.39 | -3.07 | -2.42 | -2.53 | -2.85 | -2.43 | -2.43 | -3.06 |
| Parental Separation | 5.02** | 5.21 ** | 5.20 ** | 5.01** | 4.97** | 5.10** | 4.96** | 5.12** | 5.15** |
| Father unemployed | -1.76 | -1.83 | -. 81 | -1.84 | -1.87 | -1.54 | -1.76 | -1.89 | -. 72 |
| Mother unemployed | -1.26 | -1.34 | -1.41 | -1.27 | -1.27 | -1.31 | -1.20 | -1.08 | -1.35 |
| Family Income ${ }^{4}$ | -. 01 | -. 01 | -. 01 | -. 01 | -. 01 | -. 01 | -. 01 | . 00 | -. 01 |
| Fathers' Education | -. 25 | -. 25 | -. 21 | -. 29 | -. 30 | -. 29 | -. 25 | -. 26 | -. 22 |
| Fathers' Marital Conflict | . 10 | . 10 | . 08 | . 08 | . 08 | . 08 | . 09 | . 08 | . 05 |
| Mothers' Marital Conflict | -. 13 | -. 12 | -. 12 | -. 13 | -. 13 | -. 11 | -. 13 | -. 12 | -. 12 |
| Fathers' Time x Gender of Child |  |  | .78** |  |  |  |  |  | .76** |
| Fathers' Closeness x Gender of Child |  |  |  |  |  | $1.66 \dagger$ |  |  | . 72 |
| Adjusted $\mathrm{R}^{2}$ | . 06 | . 03 | . 05 | . 03 | . 03 | . 03 | . 03 | . 03 | . 05 |
| F | 2.10** | 2.03** | 2.61*** | 1.97* | 1.85* | 2.03** | $2.00^{* *}$ | 1.85* | 2.41 *** |
| *** $\mathrm{p}<.001$; ** $\mathrm{p}<.01$; * $\mathrm{p}<.05 ; \dagger \mathrm{p}<.10$ |  |  |  |  |  |  |  |  |  |
| ${ }^{1} \mathrm{~N}=504$; All analyses are weighted using the individual-level sample weight. |  |  |  |  |  |  |  |  |  |
| ${ }^{2}$ Female is omitted category. |  |  |  |  |  |  |  |  |  |
| ${ }^{3}$ Neither employed nor in school is omitted category. |  |  |  |  |  |  |  |  |  |
| ${ }^{4}$ Income in thousands. |  |  |  |  |  |  |  |  |  |


[^0]:    ${ }^{1}$ There is another item asking how often the couple disagrees about having a(nother) child. However, including this item reduces the Cronbach's alpha to .73 for fathers and .75 for mothers, so it is not included in these analyses.

[^1]:    ${ }^{1} \mathrm{~N}=504$; All analyses are weighted using the individual-level sample weight.

[^2]:    ${ }^{1} \mathrm{~N}=504$; All analyses are weighted using the individual-level sample weight.
    ${ }^{2}$ Female is omitted category.

