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Adolescents with Nonresident Fathers: Are Daughters more Disadvantaged than Sons?

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Abstract

This study examined sons' and daughters' involvement with nonresident fathers and associated outcomes ($N=4,663$). Results indicate that sons and daughters report equal involvement with nonresident fathers on most measures of father investment, although sons report more overnight visits, sports, and movies, and feeling closer to their fathers compared to daughters. Sons and daughters generally benefit from nonresident father involvement in the same way in internalizing and externalizing problems and grades. However, feeling close to one's nonresident father is associated with lower internalizing problems for daughters than sons. These findings suggest that nonresident fathers should be encouraged to be equally involved with their sons and daughters, as such involvement is associated with higher levels of well-being for both sons and daughters.

Keywords

Father-child relations; National Longitudinal Study of Adolescent Health (ADD Health); Nonresidential Parents

There is near uniform agreement among family scholars that children with nonresident fathers tend to be worse off with respect to behavioral problems and school achievement than children who reside with both biological parents. Also, with some exceptions, there is consensus that greater high-quality nonresident father involvement with children is beneficial for offspring. However, there is far less consistency in the literature regarding how offspring gender fits into these family processes. Yet if differential father involvement by gender exists, and if it is associated with better outcomes for sons, then daughters may be strongly disadvantaged compared to sons (Lundberg, McLanahan, & Rose, 2007).

This project studies nonresident father involvement with sons and daughters. We have two primary research aims. First, we examine whether nonresident fathers invest more of their time and resources in their sons or daughters, a question with conflicting results in current research. In doing so, we also investigate whether offspring gender differences in nonresident father involvement vary by marital birth status, and whether nonresident fathers are more involved with daughters who have brothers than daughters without brothers. Second, we assess whether nonresident father involvement affects sons' and daughters' outcomes differently. This investigation is distinctive because in addition to helping to

answer some important research questions, we use recent data from a nationally representative dataset, we include multiple measures of adolescent well-being, we use the adolescent's (rather than the mother's) report of several different indicators of father investment, and we consider the influence of marital birth status and siblings.

Do nonresident fathers invest more of their time and resources in sons or daughters?

There is general agreement among fatherhood scholars that meaningful nonresident father involvement has benefits for children (Amato & Gilbreth, 1999, but see Hawkins, Amato, & King, 2007 for a contrary view). Several studies have examined the question of whether nonresident fathers are significantly more invested with their sons or daughters, as differential father investment may result in gender inequality in outcomes (Lundberg et al., 2007). A social learning perspective suggests that children's socialization and development is accomplished largely through identification and imitation (Lamb, 1981). Thus, fathers may spend more time with sons because they (and mothers) feel that fathers are important role models for their sons.

Some studies find no association between child gender and nonresident father involvement (Cooksey & Craig, 1998; Maccoby & Mnookin, 1992; Seltzer & Bianchi, 1988). In contrast, other studies observe that nonresident fathers have more contact with their sons than with their daughters and may be closer to them (Hetherington, Cox, & Cox, 1982; King, Harris, & Heard, 2004; King, 2002; Manning & Smock, 1999). At least one study found that fathers are actually more likely to be involved with daughters than sons (Seltzer, 1991). Most recently, Lundberg et al. (2007) compared married and unmarried fathers, and ascertained almost no evidence of greater father involvement with sons among unmarried fathers except for a greater likelihood of sons to have the father's surname on the birth certificate. However, they did find that married fathers with sons are more likely to live with a son than a daughter a year after the child's birth, and they concluded that the effect of child gender appears to depend on whether parents were married at their child's birth.

In a recent review of literature on sons, daughters, and family processes, Raley and Bianchi (2006) concluded that overall, fathers seem to be more invested in parenting sons than daughters. However, they also pointed out that null findings are harder to publish in the social sciences, which may bias the overall conclusion about gender effects. Raley and Bianchi also highlighted the fact that whereas there is a good deal of literature focusing on married fathers, much less is known about other fathers. This study resolves some of the conflicting results by studying nonresident fathers and taking marital status at birth into account.

We also attempt to replicate the finding that marital status at birth may determine whether father investment differs by offspring gender. Two recent studies have found that fathers who are married at the time of the child's birth are likely to be more heavily invested in their sons than their daughters, whereas fathers who are unmarried at their child's birth appear to be equally involved with their daughters and sons (Lundberg et al., 2007; Raley & Bianchi, 2006). This may reflect more traditional gender attitudes on the part of married fathers.

In addition, we look more closely at the findings that fathers are more invested in sons and daughters who have brothers (e.g. Harris & Morgan, 1991; Morgan, Lye, & Condran, 1998). Using a sample of intact families from the National Survey of Children, Harris and Morgan (1991) found that daughters receive less attention from fathers than do sons, but when daughters have brothers they receive more attention from fathers than do daughters without brothers. In 1998, Morgan et al. analyzed risk of marital disruption using Current Population Survey data and found that among couples with two children, the risk of disruption was lowest among couples with two sons, highest among couples with two daughters, and in

between for couples with one son and one daughter. A prior study using NSFH data has suggested that the presence of multiple full siblings increases father visitation, but did not examine whether the effect of the presence of siblings on visitation differed by gender (Cooksey & Craig 1998), a question we explore.

Does nonresident father involvement affect sons' and daughters' outcomes differently?

A central question that is seldom addressed is: does nonresident father involvement *affect* sons' and daughters' *outcomes* differently? The latent assumption underlying much research comparing father involvement with sons and daughters is that differential father investment will result in unequal outcomes between sons and daughters. However, if differential father investment does not affect *outcomes* differentially, then the questions regarding whether fathers are more involved with sons than with daughters are less important. On the other hand, if father involvement has the same effect for both daughters and sons, but fathers are more involved with their sons, then sons will be advantaged relative to daughters. A second possibility is that fathers are equally involved with sons and daughters, but sons benefit more from father involvement than daughters, in which case sons will also be advantaged relative to daughters. If either of these cases exists, then the resulting disparity will be of great concern to researchers, practitioners, and others. Therefore, the question of whether nonresident father involvement is associated with more benefits for boys than for girls is of utmost importance.

To date, the results of studies on this topic are inconclusive. One theory is that boys will accrue more benefits from interaction with their nonresident fathers than will girls (Coley, 1998; Furstenberg & Weiss, 2000; Furstenberg, Morgan, & Allison, 1987). A social learning perspective suggests that boys will benefit more from nonresident father involvement because they positively identify with and imitate their fathers as they develop (Lamb, 1981). However, much research suggests that there is weak evidence for differential outcomes between sons and daughters related to nonresident father involvement (Amato & Gilbreth, 1999; Furstenberg et al., 1987; King, 1994; King & Sobolewski, 2006).

For example, using data from the National Survey of Families and Households (NSFH) and testing five different outcomes, King and Sobolewski (2006) found that nonresident father involvement may be more beneficial for boys than girls on only a few outcomes. Boys with high-quality relationships with their fathers had better grades and acted out less at school. In contrast, girls' grades were not associated with father-child relationship quality, and father-child relationship quality was actually associated with girls being more likely to act out at school. However, the other outcomes in the study, such as internalizing problems, externalizing problems, and child sense of self-efficacy, were associated with father involvement in the same way for sons and daughters. In a meta-analysis of 63 studies, a similar finding was observed by Amato and Gilbreth (1999).

However, some studies do find gender differences in outcomes related to nonresident father involvement. A study by Amato and Rezac (1994) found that boys significantly benefit from contact with a nonresident parent as long as interparental conflict is low, whereas girls do not, although the trend for girls is in the same direction. However, several factors, such as only focusing on externalizing problems (which are more often observed among boys than girls as noted by Skaggs and Jodl (1999)) as an outcome, may have affected the results.

It is also clear that the types of measures of father involvement used in these studies are important, as the type of interaction rather than mere contact is important for outcomes. High-quality relationships between children and fathers are an important source of social capital, and when fathers are highly involved in their children's lives, they also create valuable social capital through involvement in community institutions such as schools,

churches, or athletic organizations (Marsiglio, Amato, Day, & Lamb, 2000). Social capital accrued through nonresident father investment in turn is positively associated with child outcomes. To that end, our study attempts to clarify whether and how sons and daughters may benefit differently from nonresident father involvement by testing several outcomes and multiple types of nonresident father involvement including contact, payment of child support, shared activities, communication, arguments, and emotional closeness.

Although not a major focus of the current study, we also explore whether gender differences in nonresident father involvement and associated outcomes appear to vary further by race/ethnicity, given the higher prevalence of nonresident fathers among Blacks and our limited knowledge regarding racial/ethnic diversity in nonresident father involvement (King et al., 2004).

Control Variables

An important control in the study of nonresident father involvement and child well-being is mother-child relationship quality (King & Sobolewski, 2006). Although fathers are sometimes very emotionally engaged with their children (Marsiglio et al., 2000), mothers tend to be especially temporally and emotionally involved with their children (Collins & Russell, 1991; Crouter, Helms-Erikson, Updegraff, & McHale, 1999; Russell & Saebel, 1997). Children of nonresident fathers who have high-quality relationships with their mothers are likely to be better off than children who do not enjoy a high-quality relationship with their mothers.

It is important to take mother-child relationship quality into account in a study looking at gender differences among children because there is a suggestion in the literature that daughters may be closer to their mothers than sons are (Boyd, 1989; Chodorow, 1978). In one study of divorce and separation, a more severe drop in affection was observed on the part of sons for mothers than fathers. Among daughters, however, divorce was associated with slightly higher affection for mothers and a significant decline in affection for fathers (Booth & Amato, 1994). The age of the offspring may be important, however. We examine whether the adolescent daughters in this sample are closer than sons to their mothers as the aforementioned study would suggest, which may not be the case because adolescent girls may be distancing themselves from mothers as they negotiate issues of autonomy (Shanahan, McHale, Osgood, & Crouter, 2007).

In addition to the measures previously discussed (marital birth status, presence and gender of siblings, and mother-child relationship quality), our analyses include several variables associated with nonresident father involvement and well-being. Adolescent age is associated with greater maturity and lower levels of some problem behaviors, but higher levels of others, such as delinquency and risky behaviors (Kann et al., 2000). Racial and ethnic differences, often associated with social and economic factors, have been demonstrated in both nonresident father involvement and in children's developmental outcomes (Farkas, 2004; King et al., 2004). Household income and parental education are positively associated with well-being (Bornstein & Bradley, 2003; Yeung, Linver, & Brooks-Gunn, 2002). Time since separation from father is associated with father involvement and well-being (Amato, 2000; Seltzer, 1991). Stepfamilies are associated with both positive and negative circumstances for children compared to single mothers. Positive factors include increased income, and negative factors include stress in family reorganization (Amato, 2000; Coleman, Ganong, & Fine, 2000).

Adolescent Outcomes

In general, girls exhibit higher rates of internalizing problems and boys exhibit higher rates of externalizing problems (Skaggs & Jodl, 1999). Boys are also more likely to achieve lower grades (e.g. Moffitt, Caspi, Rutter, & Silva, 2001). Yet some studies on father involvement with sons and daughters and associated well-being test only internalizing or externalizing problems or another outcome rather than a range of outcomes (e.g. Amato and Rezac 1994). In this study, we examine internalizing problems, externalizing problems, and grades as adolescent outcomes to take into account gender differences in how problem behavior is expressed.

Method

Data

The data used to answer the questions in this study come from the first wave of the National Longitudinal Study of Adolescent Health (Add Health). The full sample includes 20,745 high school and middle school students. When appropriate sample weights are used, these data are a nationally representative sample of adolescents in grades 7 – 12 in the United States. A parent or parent figure (usually the resident mother) of each adolescent also was asked to complete a questionnaire ($n=17,670$; see Bearman, Jones, & Udry, 1997, for a detailed description of the data).

From the main sample of 20,745 adolescents, the sample was restricted to adolescents with valid sample weights who were 19 years old or younger ($n=18,598$) who reported living with their biological mother ($n=15,879$) and who reported knowing about a living nonresident biological father ($n=4663$). Expectation maximization algorithms were used to deal with missing data. For most variables, less than 1% of the data were missing. Exceptions were household income (22.6%), father education (14.8%), child support (16.6%), GPA, (3.6%), and marital birth (18.4%). The Add Health data set relies on a stratified and clustered sampling design, so we adjusted all standard errors for clustering, stratification, and weighting using *svy* procedures in STATA (Chantala, 2006).

Measures

Family characteristics—The adolescent's gender is a dichotomous variable (1 = *female*, 0 = *male*). Adolescent's age is a continuous variable ranging from 11 to 19 years. Race-ethnicity is measured as a set of dummy variables that includes non-Hispanic Whites (omitted reference group), non-Hispanic Blacks, Hispanics, and other reported races. Mother's marital status at the time of the adolescent's birth is a dichotomous variable based on the marital and fertility histories in the parent survey (1 = *marital birth*, 0 = *nonmarital birth*).

Nonresident father's education is reported by the adolescent and measured using a set of four dummy variables (1,0) representing four educational categories: less than high school (omitted reference group), high school graduate or GED, some post-high school education, college degree or more. Time since separation refers to the number of years since the adolescent lived with the biological father and was obtained by subtracting the age at which the adolescent reported the father moved out from the child's current age.

Household income was taken from the parents report and measured in thousands of dollars and logged to minimize skewness. Mother's current relationship status is coded as a set of dummy variables (1, 0): biological mother and stepfather, biological mother and mother's partner, or biological mother only (omitted reference group). Has brother is a dichotomous variable coded 1 if the respondent reports living with at least one full brother (0 if no full

brothers are reported). Has sister is a dichotomous variable coded 1 if the respondent reports living with at least one full sister (0 if no full sisters are reported). Has sibling is a dichotomous variable coded 1 if the respondent reports living with at least one full sister or brother (0 if no full sisters or brothers are reported). Only full siblings are included to ensure that the siblings share the same nonresident father, since all respondents live with their mother and all of their reported siblings are in the same household.

Mother-child relationship quality—Mother-child relationship quality was measured as the average of five items: “how close do you feel to your mother,” “your mother cares about you,” “your mother is warm and loving toward you,” “you are satisfied with the way your mother and you communicate with each other,” and “overall, you are satisfied with your relationship with your mother” (1 = *not at all* to 5 = *very much*) ($\alpha=.85$ for full sample, $\alpha=.86$ for daughters and $\alpha=.81$ for sons).

Nonresident father involvement—Child support is taken from the parent survey and is measured as a dichotomous variable rather than the set of five crude categories in the dataset because the amount of the award is related to the socioeconomic status of the nonresident father (Sorensen, 1997) (1 = *father pays child support in a typical month*, 0 = *father does not pay child support in a typical month*).

Adolescents reported how often they had stayed overnight with their nonresident father in the last 12 months, and how often they had talked to their nonresident father in person or on the telephone or received a letter from the nonresident parent in the last 12 months (0 = *not at all*, 1 = *once or twice*, 2 = *several times*, 3 = *about once a month*, 4 = *about once a week*, 5 = *more than once a week*). Any contact with nonresident father measures whether the adolescent has had contact with the nonresident father in the past 12 months (1 = *yes*, 0 = *no*).

In addition, adolescents reported whether they had engaged in various other activities with their nonresident fathers in the last 4 weeks (1 = *yes*, 0 = *no*). They included shopping, playing a sport, attending a church service, seeing a movie, and working on a school project. An activity scale was computed from the mean of these five items ($\alpha=.71$). A communication scale ($\alpha=.77$) was also computed from adolescents' reports of whether they had talked with their nonresident fathers about school, social activities, or grades in the past month. Adolescents also reported whether they had had a serious argument with their nonresident fathers about their behavior in the past month (1 = *yes*, 0 = *no*). We relied on adolescents' reports of father-child closeness (1 = *not at all close*, 2 = *not very close*, 3 = *somewhat close*, 4 = *quite close*, 5 = *extremely close*).

Adolescent outcomes—Two child outcome scales were created from adolescent reports and are based on factor analytic techniques. Externalizing problems are the average of three standardized subscales: nonviolent delinquency such as damaging property (10 items, $\alpha = .78$), violence such as serious fighting or using a weapon (eight items, $\alpha = .81$), and substance use such as binge drinking (six items, $\alpha = .84$).

Internalizing problems are the average of three standardized subscales: depressive symptoms such as “couldn't shake off the blues” (seven items, $\alpha = .77$), negative outlook such as “happy and enjoying life” reverse coded (four items, $\alpha = .70$), and low self-esteem such as “having a lot to be proud of” reverse coded (six items, $\alpha = .82$).

Grades are measured as the respondent's grade point average on a 4.0 scale (1 = *A*, 4 = *D or lower*), which is calculated by averaging the respondent's reported grades in English, math, history, and science.

Analytic Strategy

Our first step was to determine whether there was a difference between sons and daughters in a variety of measures of nonresident father involvement as well as mother-child relationship quality. We investigated whether nonresident fathers were more involved with daughters who have brothers than daughters without brothers, and whether offspring gender differences in nonresident father involvement varied by marital birth status or race/ethnicity. Next we investigated whether there were any differences between sons and daughters in how nonresident father involvement is associated with offspring well-being, as measured by internalizing problems, externalizing problems, and grades. Interactions between child gender and father involvement variables, father characteristics, and family characteristics were also tested to determine gender differences in outcomes. Finally, we explored whether gender differences in outcomes associated with father involvement varied by race/ethnicity.

Results

Sample

The family characteristics of the nonresident father sample are shown in Table 1. The sample was 53% female, 62% White, 24% Black, 11% Hispanic, and 2% other race. The mean age of the adolescents was about 16 years old. About 61% of the sample was born to married parents. Most of the nonresident fathers had completed high school (43%), and 23% of them had a college degree. The mean time since separation from nonresident fathers was 9.9 years. The average household income was \$33,500. Most (60%) of the resident mothers were single mothers without a partner in the household, 33% were married to a stepfather, and 7% were cohabiting with their partner. A little over half of the adolescents in the sample were living with at least one full sibling.

Do nonresident fathers invest more of their time and resources in sons or daughters?

Our first research aim was to determine whether nonresident fathers are differentially invested in sons or daughters. Table 2 compares nonresident father involvement, mother involvement, and adolescent outcomes between sons and daughters who have nonresident fathers. The design-based *F*-statistic tests whether differences between sons and daughters are statistically significant. These analyses indicate that in many aspects of father involvement, nonresident fathers are, on average, equally involved with their sons and daughters. However, there are several areas in which sons appear to have more opportunities for interaction with their nonresident fathers than do daughters. In contrast, there are no aspects of father involvement in which fathers are significantly more involved with their daughters than their sons.

Table 2 shows that sons have significantly more overnight visits with their fathers than do daughters. There are no significant differences in how often sons and daughters speak with their fathers or whether there is any contact with the nonresident father in the past year at all.

Nonresident fathers are about equally like to engage in shopping, attend religious services and activities, and work on school projects with their sons and daughters. However, they are significantly more likely to spend time playing sports and going to movies with their sons than with their daughters.

There is no significant difference in nonresident fathers paying child support to sons and daughters, nor are there significant differences in communication between nonresident fathers and their male and female children. Sons and daughters report talking about dating, grades, and school with their fathers about evenly. They also report arguing with their fathers with about the same frequency. However, there is a statistically significant difference

in how close sons and daughters report feeling to their nonresident fathers. On a scale of 1 to 5, the average closeness score for sons is 3.27, which is significantly higher than the average closeness score of 2.91 for daughters. Although nonresident fathers appear to be equally involved with their male and female children in several aspects of involvement, sons do appear to feel closer to their nonresident fathers compared to daughters.

In further analyses (not shown), we explored the question of whether fathers may be more involved with daughters when they have a son (as found in some previous research such as Harris & Morgan, 1991), and found that nonresident fathers seem to significantly favor daughters who have full brothers compared to daughters who do not have full brothers on several variables: talking, having any contact, playing sports, talking about school, and being close (there were no significant differences on the remaining involvement variables). However, when father involvement between daughters who had a full sibling of either gender and daughters who did not have a full sibling was tested, every variable with a significant difference between daughters who do and do not have brothers was significantly different between daughters who did and did not have a sibling, and in the same direction. In fact, two more significant differences appeared, in favor of daughters who have at least one sibling: spending the night and talking about grades. It appears that fathers are more involved when they have more children, but there was not evidence that fathers are more involved with their daughters when they have sons rather than daughters. The same pattern was found for sons: sons who have a sibling of either gender enjoy a greater amount of nonresident father involvement than sons without siblings.

Table 2 also compares sons' and daughters' reports of their relationship quality with their mothers. There is some suggestion in the literature that daughters are closer to their mothers than sons are. However, among this sample of adolescents, the opposite is true. Sons have significantly higher relationship quality with their mothers than daughters. Further analyses (not shown) reveal that sons report significantly higher scores on all of the individual items that make up the relationship quality scale compared to daughters. Sons are significantly more likely to report being close to their mothers, feeling that their mothers care about them, feeling that their mothers are warm and loving, and enjoying a high level of communication with their mother. Sons also rate their overall satisfaction with their relationship with their mothers at significantly higher levels, on average, than daughters.

Table 2 also provides the mean internalizing problems score, externalizing problems score, and grade point average for sons and daughters of nonresident fathers. Sons and daughters have significantly different scores on all three outcome measures ($p < .001$). As expected, daughters have significantly higher scores on the internalizing problems scale, whereas sons have significantly higher scores on the externalizing problems scale. Female children have significantly higher grade point averages than male children as well.

In further analyses (not shown), we divided the sample by marital birth status and further compared sons and daughters to determine whether nonresident fathers married at their children's birth were more invested in sons compared to nonresident fathers who were unmarried at birth. We found statistically significant ($p < .05$) differences between sons and daughters on exactly the same items for the marital birth sample, the nonmarital birth sample, and the full sample in Table 2 with only one exception: there was a significant difference in child support payment in the nonmarital birth sample. Nonresident fathers who were unmarried at their child's birth were more likely to have paid child support for daughters than sons.

Finally, we investigated whether gender differences in father involvement varied by race/ethnicity. Two findings were consistent across all racial/ethnic groups: sons report playing

sports with their fathers significantly more often than daughters, and sons have significantly higher quality relationships with their mothers compared to daughters. Though statistical significance varied somewhat, other trends observed in the full sample were also found in the racial/ethnic subsamples, with two exceptions: among Blacks, daughters were significantly more likely to have recently talked with nonresident fathers than sons, and nonresident fathers were significantly more likely to have paid child support for daughters than sons (45% compared to 37%). These two findings are a bit puzzling and may warrant further examination in future research, but overall results suggest fairly similar patterns of nonresident father involvement by gender across racial/ethnic groups.

Does nonresident father involvement affect sons' and daughters' outcomes differently?

The second aim of our study was to explore whether there are any differences in how nonresident father involvement affects the well-being of sons and daughters. Table 3 provides the results of ordinary least squares regressions predicting internalizing problems, externalizing problems, and grade point average among sons and daughters who have a nonresident father. The father involvement variables included in the analyses were those that had significant differences between sons and daughters in Table 2 (overnight, activities, and closeness). Correlations between all of these items were calculated and all correlations were .50 or below. We tested all of the other father involvement variables separately and together and none were significantly different between sons and daughters, so we presented the results for those three variables with significant differences between sons and daughters in Table 2. Other father characteristics, including education, time since departure, and child support payment, were also included.

Spending the night with one's nonresident father does not appear to predict sons' or daughters' outcomes. However, both doing activities with one's nonresident father and closeness to the nonresident father are associated with better outcomes. Doing activities with a nonresident father appears to significantly lower daughters' externalizing problems and increase grades for both sons and daughters. There is a statistically significant association between feeling close to one's nonresident father with daughters' internalizing problems and sons' externalizing problems.

In order to assess whether the father involvement variables predicted outcomes for sons and daughters in different ways, we tested interactions between offspring gender and each of the father involvement variables and family characteristics in Table 3. We found that overnights with nonresident father and activities with nonresident father appear to predict sons' and daughters' well-being in the same way. However, we found that the interaction between child gender and closeness to nonresident father was statistically significant in predicting internalizing problems and grades. The interaction coefficient was significant at $p=.039$ in both equations. This finding suggests that daughters benefit more than sons from being close to their nonresident fathers in terms of internalizing problems. The finding for grades seems less important since closeness to nonresident father is not a significant predictor of grades for either sons or daughters.

In further analyses (not shown), we investigated whether gender differences in outcomes associated with father involvement varied by race/ethnicity. As in the full sample, we found that nonresident father involvement generally predicted outcomes in the same way for sons and daughters across the racial/ethnic subgroups. The coefficients for father involvement were not significantly different between sons and daughters with one exception: in the White sample (as in the full sample), closeness to the nonresident father was a significantly stronger predictor of lower internalizing problems for daughters than for sons. Although this gender difference did not reach statistical significance in the models for Blacks or Hispanics, the trend was similar, and the lack of a significant gender difference may be a consequence

of the smaller sample sizes of these two groups. Further testing revealed that we could not reject the null hypothesis that the coefficients for closeness to the father in the models for internalizing problems were the same for Whites, Blacks, and Hispanics.

The effects of the control variables are mostly in expected directions. As is consistent with the literature, having a high quality relationship with one's mother is significantly associated with fewer externalizing and internalizing problems and higher grade point average for both daughters and sons. Clearly, mother-child relationship quality is a very important predictor of adolescent wellbeing. Also, it is worth noting that although child support is not a significant predictor in our study, it has been found to be an important predictor of offspring well-being in other studies. Among adolescents, however, other studies have found a similar lack of effect of child support on outcomes (e.g. King & Sobolewski, 2006). Finally, there is a statistically significant interaction between child gender and marital birth on externalizing problems. It appears that being born outside of marriage significantly increases sons' but not daughters' externalizing problems.

Discussion

There are many studies about how nonresident fathers interact with their children and whether nonresident father involvement is more frequent or more important for sons or daughters, but previous research has yielded conflicting and inconclusive results. In this study, we employ a recent nationally representative sample of adolescents to provide a more definitive answer about offspring gender differences in nonresident fathering and adolescent well-being.

Our results show sons and daughters experience equal levels of father involvement in many respects, but where differences exist, sons report having higher levels of father involvement than daughters. For example, sons report that they feel significantly closer to their nonresident fathers than daughters do. They are more likely to play sports, go to the movies, and spend the night with their fathers. Sons and daughters have equal involvement with their nonresident fathers in all other measures in this study. Although we can only speculate about the basis for the difference in girls' and boys' patterns, it may be that fathers and sons share common interests in some of these activities, like movies and sports. We speculate that daughters may have more interaction with their fathers in other activities, perhaps such as cooking, reading, or art activities. Yet it could be that sons may have many more areas not captured in this study where they have more interactions with their nonresident fathers.

Perhaps our most important finding is that differential nonresident father involvement generally does not appear to translate into unequal levels of sons' and daughters' overall wellbeing. However, daughters do benefit more in terms of internalizing problems from feeling close to their fathers than sons do. This is an important finding particularly in light of the fact that sons report feeling closer to their nonresident fathers than daughters do. Although there are some hypotheses about why fathers may be more important for sons, this study suggests that nonresident father involvement either benefits sons and daughters equally or, on one outcome, closeness to nonresident fathers benefits daughters more than sons. In their review, Raley and Bianchi (2006) wisely point out that social science literature may be biased toward publishing studies with statistically significant gender differences. Based on the results from the study presented here, we do not find strong reasons to worry about nonresident fathers favoring sons to the detriment of daughters. However, given that daughters feel less close to nonresident fathers and feeling close to nonresident fathers significantly lowers daughters' internalizing problems more than sons', some might say that nonresident fathers might be particularly encouraged to help their daughters feel closer to them. We should also keep in mind, though, that there is no interaction effect between

closeness to nonresident fathers and gender for externalizing problems, and closeness to nonresident fathers is associated with significantly lower externalizing problems for sons. Likewise, doing activities with nonresident fathers is associated with better grades for both sons and daughters. Our overall conclusion is that nonresident fathers should be encouraged to be involved with both their sons and daughters. On many measures of father involvement, such as talking, payment of child support, and communication about various topics, sons and daughters do report equal levels of father involvement.

An important and somewhat surprising finding in this study is the significantly better relationship quality that adolescent sons appear to enjoy with their resident mothers compared to adolescent daughters. Sons are, on average, closer to their mothers, feel their mothers care more about them, feel their mothers are more warm and loving, and report higher levels of communication and overall satisfaction with their relationships with their mothers compared to daughters. It is likely that this finding is related to the fact that the sample is made up of adolescents, and female adolescents are likely to be distancing themselves from their mothers as they reach adolescence (Shanahan et al., 2007), perhaps in ways that make their relationships less close than sons' relationships with their mothers at this stage of development. Another possibility is that boys report being closer to their mothers than girls because boys may have a lower standard of what being close means. In any case, both sons and daughters benefit from high quality mother-child relationships.

The results of this study also offer an explanation for the fact that daughters with brothers appear to experience greater levels of father involvement than daughters without brothers. Both daughters and sons with siblings experience more involvement with their nonresident fathers relative to their peers without siblings; the greater involvement does not appear to be gender-based (i.e. related to girls having brothers with whom fathers want to be more involved). It is worth noting that having more children may be an indicator of a greater parental investment to begin with and not that the presence of more children elicits more involvement.

Differences in nonresident father involvement with sons and daughters did not vary by marital birth status. We found no evidence that nonresident fathers married at the time of the child's birth were more invested in sons than daughters, as some prior research has suggested (Lundberg et al., 2007). Rather, our research suggests that the effect of child gender on nonresident father involvement does not depend on whether parents were married at their child's birth, at least among adolescents. Patterns of nonresident father involvement by gender were also fairly similar within racial/ethnic groups, and gender differences in outcomes associated with father involvement varied little by race/ethnicity.

Our research improves on other studies on this topic by using relatively recent nationally representative data and exploring both father involvement and several resulting child outcomes. We employ a wide variety of measures of nonresident father involvement, and also take mother-child relationship quality, siblings, and marital birth status into account. A limitation of the study is the fact that we do not test for child effects, which have been shown to be significant in affecting nonresident father involvement (Hawkins et al., 2007) and even parents' relationship status (Reichman, Corman, & Noonan, 2004). It is quite possible that children who have fewer problems encourage their fathers to be more involved with them. Regardless of the causal direction, we generally do not find gender differences in the associations between father involvement and well-being.

The study could be improved with data that allow comparisons of the relationships between fathers and children before the fathers became nonresident, to see whether the patterns we observe constitute continuations of relationships when fathers were still residing with the

children. It is likely that gender differences in closeness to fathers and playing sports with fathers appear before fathers become nonresident. Another limitation of our data is our measure of receiving a letter from the father, which does not specify whether email and text messages are included. New technology has changed parent-child interactions and communication, and we are not sure whether adolescents are including email or text messages when they answer whether they have received a letter from their father. Similarly, we do not know what the tone and quality of communication between nonresident fathers and children is. Although we do have some measures of what was talked about, the topics and tone of conversation are important and cannot be captured with these data. Further examination of communication seems well-suited to a qualitative study. Qualitative studies in particular can shed more light on the nature and meaning of nonresident father-child interactions.

One policy implication from this study is that nonresident father involvement with both sons and daughters should be encouraged. Sons appear to have more opportunities for some types of interaction with their fathers than daughters do. Yet our arguably robust significant results suggest that the effect of participating in activities such as shopping, sports, religious activities, movies, and school projects with a nonresident father may affect both sons' and daughters' outcomes in positive ways. Although feeling close to nonresident fathers is more important for lowering daughters' internalizing problems than sons', feeling close to nonresident fathers is important for sons' externalizing problems. Therefore closeness among nonresident fathers and both sons and daughters should be encouraged.

This research helps us reach much firmer conclusions regarding gender differences in father involvement and associated outcomes. As Powell and Downey (1997) point out, the inclusion of gender effects in contemporary research has improved social science in general. However, we should not automatically assume that gender matters in every situation, as such a premature assumption may be to the detriment of families. Our study indicates that nonresident fathers are involved with both their sons and daughters, and such involvement is associated with better outcomes in the same way for sons and daughters.

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Table 1
Descriptive Statistics of Sample of Adolescents with Nonresident Fathers

Family Characteristics	% or M (SE)
Child is Female	53%
Child Age (in years)	16.1 (.02)
Child Race	
White	62%
Black	24%
Hispanic	11%
Other	2%
Marital Birth	61%
Father education	
Less than high school	19%
High school graduate	43%
Post-high school	15%
College degree+	23%
Time since separation	9.8 (.08)
Household income (in thousands)	33.5 (.61)
Mother's Current Relationship Status	
No partner in household	60%
Living with partner	7%
Married to stepfather	33%
Has sibling	55%
Has brother	34%
Has sister	32%

Note: Imputed cases excluded. All values are weighted.

Table 2
Nonresident Father Involvement, Mother Involvement, and Outcomes by Gender Among
Adolescents with Nonresident Fathers (% or M)

<i>Nonresident Fathers</i>	<i>Sons</i>	<i>Daughters</i>	<i>F^a</i>
<i>Contact</i>			
Overnight	1.54	1.22	19.82***
Talk	2.79	2.71	1.29
Any contact	.86	.86	.24
<i>Activities</i>			
Shopping	25%	23%	1.08
Sports	25%	13%	60.32***
Religious	11%	11%	.000
Movie	24%	18%	12.58**
Project	11%	8%	3.15
Activities scale	.19	.15	18.07***
<i>Child Support</i>			
Child support paid	52%	55%	1.24
<i>Communication</i>			
Dating	31%	32%	3.91
Grades	52%	52%	.03
School	42%	43%	.19
Talking Scale	.42	.42	.12
<i>Relationship Quality</i>			
Argue	.12	.12	.36
Closeness	3.27	2.91	46.10***
<i>Resident Mothers</i>			
Mother relationship quality scale	4.49	4.34	34.08***
<i>Child Outcomes</i>			
Internalizing Problems	-.19	.15	75.17***
Externalizing Problems	.23	-.15	66.29***
G.P.A.	2.53	2.80	50.62***

Note: All values are weighted.

^aDesign-based *F*.

*
p < .05.

**
p < .01.

p < .001.

Table 3
Unstandardized OLS Regression Coefficients Predicting the Effects of Nonresident Father Involvement on Internalizing Problems, Externalizing Problems, and Grades

	Internalizing Problems		Externalizing Problems		Grades	
	Daughters	Sons	Daughters	Sons	Daughters	Sons
Family Characteristics						
Child Age ^b	.03	.04*	.01	.06**	-.03*	-.01
Child Race						
White	--	--	--	--	--	--
Black	-.03	-.06	-.07	-.25*	-.17**	-.03
Hispanic	.27**	.03	.11	.04	-.23***	.03
Other ^b	.05	.52*	.04	-.53***	.09	.16
Marital Birth ^b	-.08	-.04	.08	-.24*	.05	.03
Father education						
Less than high school	--	--	--	--	--	--
High school graduate	-.10	-.10	-.12	-.11	.02	.06
Post-high school	-.17	-.17	-.13	-.18	.35***	.26**
College degree+	-.21*	-.15	-.18*	-.28*	.25***	.35***
Time since separation	-.00	-.01	-.01*	-.01	.01	-.00
Child support paid	.06	-.09	-.00	-.00	-.03	.03
Household income ^b	-.08	.00	-.12	.16	.22***	.12
Mother's Current Relationship Status						
No partner	--	--	--	--	--	--
Living with partner	.06	.11	.03	.22	-.09	-.12
Married to stepfather	.09	.08	-.01	-.11	-.02	.03
Has sibling	.03	.01	-.02	-.12	.02	.01
Mother-Child Relationship	-.57***	-.53***	-.35***	-.32***	.11**	.09*
Father Involvement						
Overnight with father	.03	-.02	.01	.01	-.03	.01

	Internalizing Problems		Externalizing Problems		Grades	
	Daughters	Sons	Daughters	Sons	Daughters	Sons
Activities with father	-.11	-.17	-.27*	-.16	.28**	.30**
Closeness to father <i>a c</i>	-.08***	-.01	-.02	-.06*	.01	.00
Constant	2.59***	1.93***	1.60***	1.29*	2.29***	1.84***
F	16.55***	8.80***	9.10***	5.49***	10.30***	5.58***
R ²	.189	.148	.106	.083	.102	.083
N	2528	2135	2528	2135	2528	2135

Note: Missing values imputed using EM estimation. All values are weighted except N.

* $p < .05$.
** $p < .01$.
*** $p < .001$.

^a Interaction terms reveal that there is a significant difference between sons and daughters on internalizing problems.

^b Interaction terms reveal that there is a significant difference between sons and daughters on externalizing problems.

^c Interaction terms reveal that there is a significant difference between sons and daughters on grades.