RESIDENT AND NON-RESIDENT FAMILY DYNAMICS AND THE ACADEMIC OUTCOMES OF ADOLESCENT STEPCHILDREN

Introduction

The number of American children and adolescents being raised in non-intact families has skyrocketed over the last several decades (Booth & Dunn 1994; Cherlin & Furstenberg 1994; Teachman et al. 2000). As a result, a great deal of research has been devoted to studying the effects of "non-traditional" family structures on child and adolescent wellbeing. Because academic outcomes are so crucial to an individual's future social and economic prospects, many researchers have chosen these outcomes as the focus of their work (Bianchi 1984; Haveman & Wolfe 1994; Shepard & Smith 1989). A growing body of research in this area indicates that children living with two biological parents tend to fare more positively than those living in non-intact families. Furthermore, despite having two resident parent-figures, the academic outcomes of children living in stepfamilies tend to be similar to, and sometimes even worse than, those of children in single-mother homes (Cherlin 1992; Cherlin & Furstenberg 1994; McLanahan & Sandefur 1994; Zill 1996).

However, previous research has indicated that not all stepfamily experiences are the same (Tillman 2003). While adolescents living in married stepfather families tend to experience better academic outcomes than those in single mother families, adolescents living in non-traditional stepfamilies tend to fare more poorly. Experiencing some of the highest levels of academic disadvantage are youth who live with their mother and a cohabiting stepfather. This variation in outcomes is, in part, due to differences in the kinds of family structure histories that youth in the various stepfamily forms tend to experience and the types of siblings with whom they tend to live (Tillman 2003). These structural explanations, however, do not fully explain why children in

some types of stepfamilies experience a greater level of academic disadvantage than do others.

This paper examines the potential mediating role of family relationships and family processes in the association between stepfamily form and academic outcomes. Research has shown that positive family relationships and processes are beneficial for child outcomes (Dornbusch 1989; Field et al. 1995; Greenberg et al. 1983; Shek 1997; Steinberg 1991). While studies suggest that the majority of adolescents feel close to and get along well with their parents (Field et al. 1995; Steinberg 1991), troubled or distant family relationships appear to be more common among non-intact families (Montemayor 1986). Stepfamily formation, in particular, may lead to very stressful and unstable family dynamics (Amato et al. 1995; Cherlin 1992; Menaghan et al. 1997; Montemayor 1986; Pong 1997).

Most stepfamily research does not adequately account for the structural complexity and diversity of stepfamily living arrangements in America (Booth & Dunn 1994: Coleman et al. 2000; Stewart 2001). Although the majority of stepchildren live with a biological mother who is married to a stepfather, a sizeable number of young people live with a stepmother (Glick 1989; Hetherington & Jodl 1994) and a rising number live in stepfamilies that are based on cohabitation rather than marriage (Stewart 2001). Yet, far less research has focused on these children and their families. As a result, we know very little about the family dynamics of stepchildren in the less traditional stepfamily forms. If children in non-traditional stepfamilies tend to experience more negative family relationships and processes, these factors may help to explain why they also tend to experience poorer academic outcomes than children in either marred stepfather families or single-mother families.

Current research on the family dynamics of stepchildren also rarely considers the joint effect of children's resident family relationships and the amount of contact and quality of relationship that they have with non-resident parents. Limited research has indicated that the

active involvement of a non-resident parent may make the formation of close, parent-like relationships with stepparents more difficult (Clingempeel & Segal 1986; Ganong & Coleman 1994; Kurdek & Fine 1993; Zill 1988). However, I know of no nationally representative research that has examined whether the protective potential of a positive stepparent-stepchild relationship depends upon the child's relationship with his or her non-resident parent. Perhaps stepparent-stepchild relationships become a more important factor in determining child outcomes when children are not receiving adequate levels of involvement and support from their non-resident biological parent. Inattention to the interaction between relationships with resident and non-resident parents leaves a major gap in our understanding of stepfamilies.

Further investigation is needed to understand the complex ways in which family relationships affect the academic outcomes of children in stepfamilies. Using data from the *National Longitudinal Study of Adolescent Health* (Add Health), this paper explores the roles of both resident family relationships and non-resident parent-child relationships in determining the academic outcomes of children in non-intact (single parent and stepparent) families. First, I establish the academic differentials across the various single parent and stepparent family types. I then explore the ways in which resident family relationships vary between non-intact family types, and whether these factors explain any of the family structure effects. Next, I determine whether a child's relationship with his or her non-resident parent moderates the association between resident family relationships and academic outcomes. Finally, I examine whether family structure effects vary according to gender.

Theoretical Background

Despite having an additional parent-figure who can, at least theoretically, provide a family with more social and financial resources, adolescent stepchildren tend to experience

academic outcomes similar to those of adolescents living in single mother families (Zill 1996). Stress mechanisms associated with the structural characteristics of stepfamilies (family structure histories, household/family composition, etc.) explain some of the academic disadvantage associated with stepfamily living, especially for youth living in traditional stepfamilies based upon marriage (Tillman 2003). Even after considering these structural characteristics, however, important variations by stepfamily form continue to exist. Youth living in non-traditional stepfamilies, particularly cohabiting stepfather families, tend to fare much more poorly than children in married stepfather families, and often more poorly than children in single mother families (Tillman 2003). To better understand this enduring academic disadvantage, I now turn to an examination of stepfamily relationships and parenting processes.

Sociological theory suggests several ways in which family relationships and parenting processes are important to the development and outcomes of children. The time and energy that significant others, especially parent figures, engage in positive relationships and interactions with children is critical to the early development of social capital. Social capital, the array of supports and resources available to an individual through their social relations with others, is believed to buffer the negative effects of stressful life events (e.g. Greenberg et al. 1983) and to effect the success with which children are socialized by their parents (Coleman 1988). The main tasks of socialization involve the transmission of values, expectations, and socially-appropriate behaviors between parents and children (McLanahan et al. 1991). Children who have high levels of social capital are more likely to accept the guidance and values of their parents than are children who do not. Successful socialization, in turn, may help to ensure that children adopt attitudes and behaviors that will aid them in developing their human capital skills (Coleman 1988). In particular, successful socialization may help children and adolescents to achieve positive academic outcomes.

During childhood and adolescence, high levels of social capital are fostered by the presence of close, harmonious family relationships, high levels of communication and involvement with parents and other adults, and consistent parental supervision (e.g. Coleman 1988). Empirical research has indicated that these factors are positively related to specific child wellbeing outcomes (Dornbusch 1989; Field et al. 1995; Greenberg et al. 1983; Shek 1997; Steinberg 1991). For example, having a close relationship with parents and experiencing high levels of parental supervision appears to protect adolescents from poor school outcomes, low academic aspirations, high levels of risk-taking or delinquent behavior, and low psychological wellbeing (Barnes 1984; Field et al. 1995; Maccoby & Martin 1983; Pulkkinen 1982; Steinberg 1991). Open communication and discussion within the home is also associated with higher academic performance, better social skills, and more positive attitudes among adolescents (Dornbusch 1989). On the other hand, conflict between youth and their parents has been linked to problem behavior, poor school performance, low self-esteem and depression (Acock & Demo 1994; Shek 1997).

Some adolescents are less likely than others, however, to experience the kinds of family relationships and processes that are beneficial for the development of social capital. Adolescents living in non-intact families may be particularly disadvantaged in terms of their family dynamics. In turn, the experience of poorer family dynamics may play an important role in explaining the lowered academic outcomes of youth from non-traditional family forms.

Resident Family Relationships and Processes as Mediators of Academic Outcomes

Youth living in non-intact families may have lower levels of social capital than other youth because they are more likely to experience weak social ties, or lose social ties, with non-resident parents, extended family, and friends. Due to heightened demands placed on resident

biological parents and a loss/decline of contact with non-resident parents, youth in single parent and stepparent families often experience less supervision and parent-child interaction than do other youth (McLanahan & Sandefur 1994). Family relationships and processes that aid in the development of social capital may also be harmed by the many economic, social, and emotional strains associated with family structure transitions (Hoffman & Johnson 1998).

Family structure transitions, usually experienced by youth in non-intact families, precipitate additional life changes that can lead to greater stress, more emotional distance between family members and higher levels of conflict between children and their parents. These life changes often include an increase in the time mothers must spend working, a change in neighborhood and schools, an alteration of family roles and responsibilities, and a loss of contact with extended family and friends (Amato et al. 1995; Cherlin 1992). Stress theory argues that experiencing multiple major life changes may challenge parents' ability to be supportive, consistent and involved with their children, and may cause children to act out in ways that are damaging to parent-child and family relationships (Hoffman & Johnson 1998).

The stress associated with transitioning from a single parent to a stepparent family may be particularly detrimental to the quality and functioning of resident family relationships and processes (Amato et al. 1995; Cherlin 1992; Menaghan et al. 1997; Montemayor 1986; Pong 1997). Along with the introduction of a new adult into the household, this transition is often marked by the introduction of new co-resident step- and/or half-siblings. The merging of households necessitates that both children and parents adapt to new people, routines and family roles (Menaghan et al. 1997), and generally leads to a decline in the amount of undivided attention and supervision that children receive from their resident biological parent (Pong 1997).

Yet, our society has neither a well-established set of norms dictating the appropriate roles for stepfamily members nor a network of institutionalized supports to help children and parents

adjust to stepfamily life. The incomplete institutionalization hypothesis proposes that family relationships and processes are inherently more difficult and less well regulated within stepfamilies as a result of this deficiency (Cherlin 1992). Indeed, results from recent research indicate that living within non-traditional sibling configurations (with step- and/or half-siblings) is quite difficult for adolescents (Tillman 2003). Previous research has also shown that stepparents generally have more distant, less involved relationships with children than do resident biological parents (Coleman et al. 2000). The introduction of a new stepparent may create confusion and uncertainty about the distinct roles of stepparents and non-resident biological parents, leading to both a reduction in the amount of involvement children have with their non-resident parents and more difficult stepparent-stepchild relationships (Cherlin 1992). Given the more ambiguous nature of cohabiting relationships, role confusion and uncertainty may occur even more frequently within cohabiting stepfamilies than within married stepfamilies. Regardless of stepfamily type, biological resident parents often actively encourage children to spend time with their stepparents, reducing the amount of time available to interact with non-resident biological parents. As a result, stepfamily formation may increase stress for both parents and children and may hinder the development and maintenance of strong, supportive interpersonal relationships.

However, just as the academic outcomes of stepchildren may vary according to stepfamily type, so might the quality of family relationships experienced by stepchildren. Although most research on the family dynamics of stepchildren focuses on those living in the most common stepfamily forms, some studies suggest that children living with a stepmother or in a cohabiting stepfamily are more likely to experience troubled family dynamics (Cherlin 1992; Clingempeel & Segal 1986; Coleman et al. 2000; Ganong & Coleman 1994; Kurdek & Fine 1993; Marsiglio 1995; Menaghan et al. 1997; Zill 1988). For example, relationships in

stepmother families appear to be more problematic and conflict-ridden than are those in stepfather families (Cherlin 1992; Clingempeel & Segal 1986; Ganong & Coleman 1994; Kurdek & Fine 1993; Zill 1988). Research has also found that children are more likely to accept and have a close relationship with a married stepparent than a cohabiting one (Buchannan et al. 1996; Marsiglio 1995), and that cohabiting stepparents tend to offer their stepchildren less parental support, closeness, and supervision (Coleman et al. 2000; Menaghan et al. 1997).

Given their positive effects upon the development of social capital and the socialization of children, I hypothesize that close family relationships (either with the family as a whole or individual parents), high levels of communication with resident parent(s), low levels of resident parent-child conflict, and high levels of parental supervision will be associated with higher academic outcomes among children in both single parent and stepparent families. I also expect that the more difficult resident family dynamics experienced by stepfamilies, particularly non-traditional stepfamilies (cohabiting stepfamilies and married stepmother families), will act to mediate the academic differentials between the various non-intact family forms.

Non-Resident Parent Relationships as Moderators of Academic Outcomes

Family relationships and processes may also depend upon the kind and quality of relationship that a child has with his or her non-resident biological parent. Some research has found that frequent contact with non-resident parents is associated with increased levels of conflict between children and their resident biological parent (e.g. Hetherington et al. 1989; Parke 1996) and less positive relations between stepparents and stepchildren, particularly between stepmothers and stepdaughters (Clingempeel & Segal 1986). Stepchildren who maintain regular contact and close relationships with their non-resident biological parent may feel emotionally (and physically) torn between that parent and their new stepparent, and may resent

the attempts of their stepparent to provide supervision and exercise control (Cherlin 1992). Stepparents of children who are actively involved with their non-resident parent may also be less certain as to the appropriate parenting roles for them to adopt. They may, therefore, be more hesitant to adopt a parent-like role in the child's life (Cherlin 1992; Cherlin & Furstenberg 1994). As a result, youth who have an actively involved non-resident parent may face more stressful, ambiguous family relationships and greater time conflicts than do other youth.

Non-resident mothers are more likely to maintain regular contact with their children than are non-resident fathers (Booth & Dunn 1994). This higher level of contact with non-resident mothers may lead children to have more problematic relationships with stepmothers than they do with stepfathers (Cherlin 1992; Clingempeel & Segal 1986; Ganong & Coleman 1994; Kurdek & Fine 1993; Zill 1988). Contact with non-resident parents also tends to decline following the remarriage of a child's custodial parent (Furstenberg & Spanier 1984). As a result, the introduction of a cohabiting stepparent may cause greater conflict and stress than the introduction of a married stepparent.

Therefore, the effect of resident family relationships may also *be conditioned by* the kind of relationship a child has with his or her non-resident parent. If children view their non-resident parents as being integral to their lives, they may place less importance upon the relationships with and involvement of their stepparents. As a result, the stepparent-stepchild relationship may have less of an impact upon the child's outcomes. On the other hand, children who have little contact or poor relationships with their non-resident parents may be more strongly affected by the involvement and support of their stepparents. For these children, any increased investment and access to social networks offered by a new stepparent may prove beneficial.

Due to a lack of institutionalized norms organizing stepparent roles and relationships, and the increased level of family conflict that may occur when a stepchild has an actively involved

non-resident parent, I hypothesize that active, close non-resident parent relationships will reduce the level of importance children place upon their relationships with their stepparents, and perhaps even their resident biological parent. As a result, these relationships may prove to be less effective mechanisms for the development of social capital and socialization. Thus, I expect that the academic outcomes of stepchildren who have positive relationships with non-resident parents will be less affected by their resident family relationships than will those who do not have positive, involved non-resident parents. Conversely, those without much contact or with low-quality relationships with their non-resident parents will experience greater benefits from their resident family relationships.

The Effect of Gender

Although there is much debate within the literature regarding the effect of gender upon the relationship between family structure and child outcomes (Booth and Dunn 1994), some research has found that boys adjust better to stepfamily life than girls. In general, girls have been found to experience more difficult relationships with stepparents than boys. For example, boys are more likely to accept a resident biological parent's new partner and to indicate that they are emotionally close to and involved in activities with that partner than are girls (Buchannan et al. 1996). Boys may also experience increased intellectual performance with the addition of a stepfather (Bray 1988), perhaps as a result of this higher level of involvement. Girls have not been found to benefit intellectually from the addition of a stepparent. Limited research has also suggested that girls may experience poorer relationships with resident stepmothers when they are in frequent contact with their non-resident biological mother. Boys' relationships with their resident stepparents, on the other hand, do not seem to be affected by contact with their non-resident parent (Brand et al. 1988).

If there are gender differences in the ways in which young people adjust to stepfamily life and relate to their resident parents, one must also question whether there are gender differences in the effect that stepfamily relationships and processes have upon adolescent wellbeing. To explore this possibility, I test for gender differences in the mechanisms driving academic outcomes throughout the multivariate analyses.

Methodology

Data

I use data from the *National Longitudinal Study of Adolescent Health* (Add Health), a nationally representative study of adolescents in grades 7 through 12 in the United States in 1995. The study includes in-depth interviews with adolescents and their parents, which provide detailed information regarding child outcomes, family composition, and family structure experiences. Add Health used a multistage, stratified, school-based, cluster sampling design. Included in the sample were students from 80 high schools (both public and private), and a corresponding feeder junior high or middle school. While some minority racial/ethnic groups were sampled in proportion to their size within the U.S. population, smaller racial/ethnic groups (e.g. Cubans, Chinese, high-income Blacks) were oversampled (Bearman et al. 1997).

Add Health involves two waves of data collection and several data collection components. The In-School component, a self-administered questionnaire, and the School Administrator Questionnaire, which focused on school characteristics, were conducted during 1994-1995. School enrollment rosters were used to randomly select students from each of the school pairs to participate in a more extensive Wave I In-Home interview. Additionally, Wave I Parental Questionnaires were completed by one of the participants' parents or guardians, usually

a mother. Wave II, conducted in 1996, included in-home interview follow-ups with those students who had completed an in-home interview in WI.

For this research, I utilize data from the adolescent In-Home interviews during both Wave I and Wave II and selected data from the Parental Questionnaire and the School Administrator Questionnaire. Since my research is focused on how relationships with *both* resident *and* non-resident parents might explain the academic differences between children in the various non-intact families, the analytic sample is limited to children from single parent and stepparent families. This sample includes approximately 5,520 adolescents who participated in both waves of the study and who had completed Parental Questionnaires with valid family structure information. Since children from married stepfather families most closely resemble "traditional" 2-biological parent families (in both composition and socioeconomic characteristics), this group will serve as the reference category throughout the analytical models.

Using social survey data to explore the issues discussed in this chapter is quite complex. Add Health provides more detailed information regarding resident and non-resident family relationships and processes than most other nationally representative data sets. However, Add Health does have some data limitations. Most importantly, the survey did not collect information on the individual-level relationships between stepchildren and cohabiting stepparents. Adolescents were only asked about their personal relationships with biological parents and/or married stepparents. As a result, analyses including the full analytical sample contain broad measures of overall 'parent' and 'family' relationships. For analyses that contain more specific measures of relationships with each individual parent-figure, children in cohabiting stepfamilies are excluded.

The use of social survey data to explore the effects of family relationships upon child outcomes also raises concerns about endogeneity bias. Claims about causal direction can not be

made. While I hypothesize that family relationships and processes influence child behaviors and achievements, those child outcomes may very well also affect family processes and relationships with family members (Duncan et al. 1999). I do sort out the temporal order of effects by exploring the impact of predictor variables measured at Wave I upon academic outcomes measured at Wave II. Concerns about directionality are also somewhat tempered because I am primarily interested in family relationships and processes as mediators of family structure effects. Although a child's relationship with their resident biological parents may lead to certain family structure arrangements, this is much less plausible than the reverse situation. Furthermore, many of the family relationship/process measures are applicable only to the child's current family structure situation. For example, a child's relationship with their resident stepparent can not logically precede the child's movement into a stepparent family.

Measures

Academic Achievement and Adjustment

This research focuses upon three outcome variables, academic expectations, self-reported GPA, and a measure of school-related behavior problems. Focusing on these three different outcomes allows for a more in-depth understanding of how non-intact families influences the overall academic lives of young people.

Respondents' academic expectations are assessed through their response to a question regarding the likelihood of their attending college. These expectations were originally measured on an ordinal scale, ranging from 1 (low) to 5 (high). Because the distribution is skewed, responses were dichotomized to indicate high college expectations (responses of 5) versus low college expectations (1-4). The sample mean of high college expectations is 0.46. Self-reported GPA, which ranges from 1 (D/F) to 4 (A), is continuous in nature and has a mean of 2.68

(approximately a C+). School-related behavior problems are measured as an index ($\alpha = 0.68$), which represents the mean item score across four five-category ordinal items (having trouble getting along with students, getting along with teachers, paying attention in school, and getting homework done) with responses ranging from "never" to "every day." This index approximates a continuous linear scale ranging from 0 to 4, with a mean of 1.04 (See Appendix A).

Non-Intact Family Structure

Non-intact family structure, the independent variable of primary interest, captures both the biological and legal relationships between the respondent and all co-resident parent figures. I classify adolescents as living in married stepfather families (n = 1536), married stepmother families (n = 322), cohabiting stepfather families (n = 298), cohabiting stepmother families (n = 36), "other" stepfamilies (n = 52), single-mother families (n = 2887), or single-father families (n = 392). "Other" stepfamilies include all adolescents living in any stepfamily without a biological parent present. Adolescents in married stepfather families serve as the primary reference category throughout the analytical models.

Given my theoretical foundation, I expect that adolescents living in stepfamilies will, in general, have outcomes similar to those living in single-mother families. I also expect that adolescents who live in the non-traditional stepfamily forms (i.e. stepmother, cohabiting, and "other" stepfamilies) will experience poorer academic outcomes than those who live with a married stepfather or a single mother.

Resident Family Relationships and Processes

The degree of emotional closeness that the respondent feels with his or her parent(s) is measured separately for each resident mother-figure and father-figure.[1] Resident Mother Closeness and Resident Father Closeness are measured through two similar indices, each of which represents the mean item score of four questions asked about the adolescents' relationships with their resident parents (see Appendix A). Original responses to the items are ordinal in nature, ranging from 1 (not at all/strongly disagree) to 5 (very much/strongly agree). The sample mean for mother closeness is 4.30, while that for father closeness is 3.91. The mother closeness and father closeness indices have reliabilities of 0.86 and 0.89, respectively.

The level of communication that the respondent has with his or her parent(s) is also measured separately for each resident mother-figure and father-figure. Resident Mother Communication and Resident Father Communication are measured as count variables that range from 0 to 4. The variable is constructed from four yes/no questions. These questions indicate whether or not adolescents have recently (within the past month) had discussions with their parent(s) about personal problems, someone they are dating or parties they have gone to, their school work or grades, and other school-related issues. Mother communication has a sample mean of 2.08, and father communication a sample mean of 1.50.

The Resident Family Relationship variable measures the overall quality of relationships an adolescent has with his or her residential family unit. The family relationship index ($\alpha = 0.74$) represents the mean item score of five questions (See Appendix A). Original responses to the items are ordinal in nature, ranging from 1 (not at all) to 5 (very much). This variable is used in

[1] The variables measuring closeness and communication with individual parent-figures can not be constructed for adolescents living in cohabiting stepfamilies. So, for analyses including the full analytical sample, I construct a variable measuring the overall quality of "family" relationships (See below).

place of the preceding variables in analyses that include cohabiting stepparents, for whom individual-level parental relationship measures are not available. The sample mean of family relationships is 3.92.

Resident Parent-child Conflict is measured as a dummy variable that indicates whether or not respondents have had a serious argument about their behavior with their resident mother and/or their resident father during the past month. Those adolescents who responded in the affirmative for both resident parent-figures, or one resident parent-figure if living in a single parent home, are assigned to the parent-child conflict category. Others are assigned to the non-conflict category. Thirty-nine percent of children in the sample have recently experienced conflict with their parent(s).

Resident Parent Supervision is measured as a count variable that ranges from 0 to 4. The variable is constructed from four yes/no questions, and indicates whether a resident parent-figure was home most or all of the time when the adolescent goes to school, comes home from school, eats the evening meal, and goes to bed at night. The mean level of parental supervision is 2.67.

Non-Resident Family Relationships

The Non-Resident Parent Closeness variable is constructed from one question that measures the subjective level of closeness that a child feels towards his or her non-resident parent. The variable is ordinal and ranges from 1 (not at all) to 5 (extremely), with a sample mean of 3.30 for non-resident mothers and 2.54 for non-resident fathers.

Non-Resident Parent Communication is measured as a count variable that ranges from 0 to 4. The variable is constructed from four yes/no questions. These questions indicate whether or not adolescents have recently (within the past month) had discussions with their non-resident parent about personal problems, someone they are dating or parties they have gone to, their

school work or grades, and other school-related issues. The sample means for non-resident mothers and fathers are 1.76 and 1.08, respectively.

Non-Resident Parent Conflict measures whether the respondents had had a serious argument about their behavior with their non-resident parent during the past month. Eleven percent of the sample reports experiencing conflict with their non-resident parent.

All adolescents living in a non-intact family have a biological parent with whom they do not live. For a small group of adolescents, however, it is impossible to have a relationship with their non-resident parent(s) at all. This group includes adolescents who have experienced the death of parent, as well as those who are unsure of whether or not their non-resident parent is alive. Since these adolescents do not have a relationship with a non-resident parent, their levels of Non-Resident Parent Closeness are coded as 1, Non-Resident Parent Communication as 0, and Non-Resident Parent Conflict as 0. To help account for the special circumstances of these youth, I also include a dummy variable, Non-Resident Parent Deceased/Unknown, in the analytical models.

Other Mechanisms

In addition to examining the direct effects of stepfamily form and family relationships and processes upon adolescent academic outcomes, this work also examines some of the other mechanisms that may help to explain these effects. For example, academic outcomes may also be compromised by residential mobility, which often occurs following a family structure transition or a change in sibling composition. Residential moves can lead to a change in schools and teachers for children, as well as the loss of valuable social networks and neighborhood resources for both parents and children (Astone & McLanahan 1991). As with troubled family dynamics, residential mobility may hinder the development of social capital. In turn, lower levels of social

capital may lead to less social support and access to fewer structural and interpersonal resources that can help alleviate stress and facilitate academic success among adolescents. This analysis controls for the proportion of life that respondents have lived at their current residence.

The stress and instability associated with major life changes may dissipate over time. The longer a family has existed in its current form, the better established are roles and relationships, and the more accustomed a child may be to his or her family living arrangements (Hetherington & Jodl 1994; Hetherington & Stanley-Hagan 2000). For this analysis, I control for the proportion of life that the respondents have lived within their current family structure. In general, I expect that this variable will be positively associated with child academic outcomes.[2]

Academic outcomes may also be compromised by economic deprivation, which is highly associated with non-intact family structure (Amato 1993; Pong 1997; Thomson 1994; Thomson et al.1994). To account for this possibility, the analysis contains a set of variables to control for the effects of economic status, including: resident parents' current level of education (the highest level of education obtained by a co-resident parent figure), total family income in 1994, welfare receipt during the previous year, and resident mother's working status (employed full-time/not employed full-time). To test for non-linear effects, parents' education and family income are both measured with a set of dummy variables. The inclusion of both family income and a dummy variable measuring welfare receipt allow me to explore separately the effects that having access to monetary resources and being dependent upon government support may have upon the academic outcomes of youth.

[2] For a contrasting view see Anderson et al. (1999). Evolutionary psychologists have theorized that new stepparents invest in their stepchildren in order to further their relationship with the child's biological parent. As the relationship with the child's parent becomes more secure over time, stepparents are expected to invest less in their stepchildren and the stepparent-stepchild relationship is expected to deteriorate.

Control Variables

The analysis also contains controls for other variables that are associated with both adolescent academic outcomes and current family structure, including the respondent's gender, age, race/ethnicity (White, Black/Afro-Caribbean, Hispanic, Asian), number of siblings (Downey et al. 1995), and immigrant generation status (Harker et al. 2001; Portes & Rumbaut 1996). The measure of immigrant generation status is also included in the models to address potential bias in linking the Add Health parent data to the adolescent data, since immigrant adolescents are more likely than non-immigrants to have incomplete parental questionnaire data (Harker 2000).

Selection Issues

Some researchers believe that differences between children living in intact and non-intact families may be due to unobserved factors that predated the transition into their current family structure. Pre-existing factors, such as parental personality characteristics and child ability levels, may influence both the kinds of family transitions that a child experiences and child outcomes (Capaldi & Patterson 1991; Cherlin et al. 1991). This analysis controls for important individual-level characteristics of both the child and his/her mother. While not a perfect solution to the problem of selection, the inclusion of these variables helps to account for some pre-existing differences that may be associated with both family structure assignment and academic outcomes.[3]

[3] The findings of recent research (Tillman 2003) also indicate that the pathways through which adolescents have moved to arrive at their current stepfamily living situation (divorce/separation, non-marital births, the death of a parent, etc.) are important determinants of academic outcomes. The longitudinal measures of family structure pathways help control for selection into current family structure by defining family formation/dissolution processes through time. In this chapter, I ran models that included dummy variables to control for these pathways. I found that, above and beyond the effect of these pathways, family relationships/processes are significant determinants of academic outcomes and mediate the effects of current family structure. Because the data required for the pathway variables are not available for all respondents, models including these variables can only be tested on a limited sample and my ability to examine the effects of family relationships/processes is diminished. Because of this, I

Controlling for the proportion of life spent living with the respondent's current family composition may also help to account for differences among stepfamilies in the quality of parental relationships, particularly among cohabiting stepfamilies. Most cohabiting stepfamilies are very short-lived. While the majority quickly transform into married stepfamilies, others dissolve rapidly. A minority of cohabiting families continue for a long period of time (Bumpass & Sweet 1989). In terms of relationship quality, cohabiting unions that quickly transform into marriage may be very similar to unions that begin with marriage. Cohabiting unions that continue for long periods without definite plans for marriage may experience more relationship problems (Brown & Booth 1996). Thus, while the duration of time spent living together may decrease stress and improve relationship quality within stepfamilies, cohabiting families of longer duration may be selective of parents who initially enter stepfamily living arrangements with more problematic relationships and individual characteristics. Including a measure of time spent in current family composition may help to account for some of the pre-existing differences that may be associated with both the likelihood of problematic stepfamily relationships and child outcomes.

Analysis Plan

I use logistic regression analysis to study the effects of non-intact family structure on academic expectations, a dichotomous variable. Ordinary least squares regression analysis is used to study the effects of family structure on GPA and school-related behavior problems, both of which are continuous in nature. While this research does not serve as an exhaustive test of all the theoretical mechanisms linking stepfamily living and child outcomes, I am able to examine

choose not to include the models with the pathway dummies in this paper. However, the results of the limited sample models that include pathway dummies are similar to the results of the full sample models.

several of these mechanisms while focusing upon my main interest in the mediating effects of family relationships and processes. Troubled family dynamics are expected to increase the levels of stress and decrease the levels of social capital found within non-intact families, particularly non-traditional stepfamilies. In addition, incomplete institutionalization of family roles/relationships and economic deprivation are explored as other mechanisms that lead to differences in academic outcomes.

First, I establish differentials in academic outcomes by non-intact family structure. I then explore the extent to which non-intact family structure differences in academic outcomes are a result of group differences in the standard control variables. Next, I run models to examine how much of the variation in academic outcomes is explained by the different mechanisms that can create stress and hinder social capital development, including residential mobility, incomplete institutionalization (length of time in current family structure), and economic deprivation (family SES). I then turn to the primary focus of this chapter and examine the extent to which academic differentials are mediated by family relationships and processes. Finally, I examine whether contact and quality of relationship with non-resident parent(s) moderates the academic outcome effects of resident parent relationships and processes.

I first estimate this series of models using the full analytical sample, which includes all adolescents in single parent and stepparent families. Since this first series of models includes cohabiting stepfamilies, I am unable to use parent relationship variables that are specific to each resident mother and father. Instead, I include a measure of overall family relationships. Then, I estimate a second series of models using only adolescents in single parent, married stepparent, and "other" stepparent families. Here I am able to explore parent-specific relationship variables. Finally, I estimate the full-sample models separately by gender to determine if the mechanisms

underlying the academic outcomes of adolescent boys and girls are similar. I find that separate gender analyses are appropriate only for the examination of college expectations.[4]

To adjust for the multistage, stratified, school-based, cluster sampling design, I estimate my models using the robust estimator of variance (otherwise known as a Huber or White estimator of variance) in STATA. I also control for differential sampling probabilities among individuals by utilizing the Add Health grand sample weights in all estimation procedures (Chantala & Tabor 1999).

Descriptive Results

The analytic sample includes 5,523 respondents who live in a non-intact family with at least one parent-figure (See Table 1). Of these adolescents, 40.6% live in stepfamilies and 59.4% live in single parent families. While the majority (68.4%) of adolescent stepchildren are found in married stepfather families, a substantial percentage are also found in married stepmother families (14.3%) and cohabiting stepfather families (13.3%). Additionally, a small percentage of adolescent stepchildren live in "other" stepfamilies (2.3%) or cohabiting stepmother families (1.6%). The vast majority (88.0%) of youth living with only one parent live in a single-mother family.

Chi-square tests indicate that significant academic outcome differences exist between adolescents of the different family structures (See Table 1). Overall, adolescents living in stepfamilies tend to have slightly higher college expectations and GPAs, but slightly more school-related behavior problems than adolescents living in single parent families. Thus,

[4] Using the full sample, I conducted Chow tests on each of the baseline models. These tests indicate that the mechanisms driving the college expectations of youth in non-intact families differ significantly by gender, but that the mechanisms driving the GPA and school-related behavior problems of youth in non-intact families do not.

adolescents in stepfamilies appear to have an advantage in terms of their achievement-related academic outcomes and a disadvantage in terms of their behavior-related academic outcomes. However, as was predicted, these differences are quite small in magnitude.

[TABLE 1 ABOUT HERE]

A more interesting picture emerges when the outcomes of adolescents in the different types of stepparent and single parent families are examined more closely. In general, adolescents living in single-mother and single-father families have lower expectations, worse achievement outcomes, and similar or worse behavioral outcomes as those living in married stepfather families. Yet, adolescents from single-mother families tend to have achievement and behavioral outcomes similar to those of adolescents in cohabiting stepfamilies, and better than those of adolescents living in married stepmother families and "other" stepfamilies. Adolescents living in single-father families tend to experience some of the worst academic outcomes of all youth.

Table 2 presents means of the family relationship and process variables that may help to explain the academic differences between adolescents living in the various types of non-intact families. Overall, youth report feeling closer to and communicating more with resident mothers than resident fathers. They also have closer, more communicative relationships with non-resident mothers than non-resident fathers. However, youth are also more likely to experience conflict with non-resident mothers. Within stepfamilies, respondents report closer, more communicative relationships with resident biological parents than resident stepparents.

[TABLE 2 ABOUT HERE]

Descriptive results also indicate that, compared to adolescents in single parent families, those in stepfamilies experience: more conflict with resident parents, less closeness with their resident mothers and fathers; lower levels of communication with their resident fathers; poorer resident family relationships; and lower levels of closeness and communication with non-

resident mothers. However, stepchildren also experience higher levels of parental supervision, greater communication with non-resident fathers, and less conflict with non-resident parents than do adolescents in single parent families.[5] Underlying these general trends, however, there is great variation in the kinds of family dynamics that children experience depending upon the *specific* type of non-intact family in which they are living.

Among youth who are living without their biological father, those in married stepfather families experience relationships with their resident mothers that are similar to those experienced by youth in single-mother families, and are closer and more communicative than are those experienced by youth in either cohabiting stepfather or "other" stepfamilies. Youth living in married stepfather families also tend to experience higher levels of parental supervision than other youth living without a biological father. Adolescents living with single-mothers and cohabiting stepfathers experience similar levels of supervision. Youth living with stepfathers, however, are more likely than those living with single mothers to have recently experienced conflict with their resident parent. Furthermore, in terms of relationships with non-resident fathers, youth living in married stepfather families experience lower levels of closeness and conflict than do others. Those in "other" stepfamilies experience the highest levels of closeness with non-resident fathers, but also the highest levels of conflict.

Among youth living without a biological mother, those in married stepmother families experience relationships with their resident fathers that are closer and more communicative than are those experienced by other youth living without their mother. Youth living in married stepmother families also experience more parental supervision and better overall resident family

[5] There is a significant positive correlation between conflict with a non-resident parent and the level of closeness that an adolescent reports having with that parent, especially when the non-resident parent is a biological father. The presence of conflict could represent a higher level of parent-child involvement.

relationships. In contrast, adolescents living with single fathers experience the lowest levels of closeness with resident parents and are among the most disadvantaged in terms of supervision and quality of resident family relationships. Yet, these same adolescents also tend to have the highest levels of closeness and communication with non-resident mothers. Due to their higher levels of interaction, however, adolescents in single-father families also experience the highest levels of conflict with non-resident mothers.

In sum, youth living in married stepfamilies and single mother families appear to experience the most positive resident family relationships and processes. In particular, their family dynamics appear to be more positive than those of adolescents living in cohabiting stepfamilies. While youth in non-traditional stepfamilies and single-father families are the most attached to and involved with their non-resident parents, they are also more likely to experience conflict with these parents. Given that contact with non-resident parents is fairly infrequent even for those youth who have the highest levels of interaction,[6] the positive effects of relationships with these parents may be outweighed by the additional stress that is generated by increased levels of parent-child conflict. Thus, youth in non-traditional stepfamilies and in single-father families may face a disadvantage in terms of having daily access to the kinds of family relationships that can aid in the development of social capital. These findings may help to explain why the academic outcomes of adolescents living in the most non-traditional stepfamilies are worse than those of adolescents living in married stepfather families, and more closely resemble those of adolescents living with single mothers and single fathers.

Table 3 presents weighted means of the family background and control variables by current family structure. Given that this sample is composed only of adolescents from non-intact

[6] The average respondent living in a non-intact home has contact with their non-resident parent approximately once a month (results not shown).

families, the respondents tend to have fewer socioeconomic resources and are more likely to be of an ethnic/racial minority group than would the "average" American adolescent. Youth in stepfamilies are socio-economically advantaged compared to youth in single parent families. However, among those in stepfamilies, the socioeconomic status of youth in cohabiting or "other" stepfamilies tends to more closely resemble that of adolescents in single parent families. Adolescents in all types of stepfamilies, but particularly those in cohabiting stepfamilies, also tend to be disadvantaged because they have lived at their current residence and within their current family structure for a much shorter period of time than other young people. Stepchildren, in general, also tend to have more co-resident siblings than do children in single parent families.

[TABLE 3 ABOUT HERE]

Thus, descriptive results indicate that adolescents in different types of non-intact families tend to have different academic outcomes, with those in married stepfamilies outperforming those in less traditional stepfamilies and single parent families. The family dynamics experienced by adolescents in non-intact families also varies according to family type. Overall, those in married stepfather families and single-mother families appear to have the closest, most harmonious relationships with resident and non-resident family members. This family relationship advantage may be conducive to the development of greater social capital and, ultimately, to academic success. For youth in single-mother homes, however, this advantage may be somewhat tempered by lower than average socioeconomic background.

Multivariate Results

High College Expectations

Full Sample Analyses

Baseline analyses of the full sample indicate that family structure is significantly associated with college expectations (See Table 4). For example, youth living in cohabiting stepfather, single father and married stepmother families have 41.2% (1 – odds ratio of 0.588 from Table 4), 40.3% (1 – 0.597) and 35.2% (1 – 0.648) lower odds of holding high college expectations, respectively, than do youth living in married stepfather families. In addition, adolescents in single mother families tend to hold marginally lower college expectations than do those living in married stepfather families.[7] Controlling for demographic characteristics in the second model does not explain the negative effects associated with non-traditional stepfamilies and single parent families. In fact, once demographic characteristics are taken into account, youth in single-mother homes are found to have significantly lower expectations than youth in married stepfather families.

[TABLE 4 ABOUT HERE]

Controlling for family socioeconomic and family background variables in the third model, however, does fully mediate the disadvantage experienced by youth living in single-mother, single-father, and cohabiting stepfather families.[8] Of particular interest, parental education, family income, resident mother's full-time employment, and proportion of life spent living in the current residence are all positively related to high college expectations. Welfare use, on the other hand, is negatively related to expectations. Thus, the lowered expectations of youth in many of the non-intact families, particularly those in single-mother families, may result from

[7] F-tests indicate that adolescents living in cohabiting stepfather and single-father families experience significantly lower ($p<0.05$) college expectations than do those in single-mother families. Adolescents in married stepmother families experience marginally lower ($p<0.10$) expectations than do those in single-mother families.

[8] Although no longer statistically significant, the effects of living in a single father or a cohabiting stepfather family are still substantively important. Youth in these families are 18% and 22% less likely to have high college expectations, respectively, than are youth in married stepfather families.

lower socioeconomic backgrounds and more frequent residential mobility. Of these variables, parental education appears to have the largest effect upon the expectations of adolescents.

Model 4 indicates that having good relationships with resident family members is also strongly associated with the likelihood of holding high college expectations. Despite a rather large direct effect, however, the introduction of this variable does not further explain the lowered college expectations of adolescents living in married stepmother families.[9] Youth in these families continue to be significantly less likely to hold high college expectations than are youth in married stepfather families. Neither resident parent-child conflict nor parental supervision are significant predictors of holding high college expectations for adolescents living in non-intact families.

Further analyses (not shown) also indicate that the quality of relationship adolescents have with their non-resident biological parents (i.e. closeness, communication, and conflict) does not significantly effect college expectations.

Resident Parent-Specific Analyses

To determine whether the lowered expectations of youth living in married stepmother families can be further explained by the quality of relationships they have with specific parent-figures in the home, I conducted analyses that included relationship information specific to each resident parent. To do so, I had to exclude from the models all respondents living in cohabiting stepfamilies, for whom this information was not collected. In order to retain in the analyses all respondents living in single parent families, the parent-specific analyses were run separately for

[9] Resident family relationships do, however, further reduce the (statistically non-significant) disadvantage of youth living in single father and cohabiting stepfather families.

those youth who have a resident father-figure (with or without a resident mother-figure) and those who have a resident mother-figure (with or without a resident father-figure).

As with the full sample analysis, results indicate that adolescents in married stepmother families are less likely than adolescents in married stepfather families to have high college expectations, even after socioeconomic status and demographic characteristics are taken into account (see Table 1 in Appendix B). Although closeness with resident father is a significant predictor of college expectations, the inclusion of this variable does nothing to explain the disadvantage of youth in married stepmother families. However, the inclusion of a variable measuring closeness with resident mother does mediate this negative effect to marginal significance.[10] This finding indicates that adolescents in married stepmother families may get along well with their resident fathers, and even their other resident family members, yet have poor relationships with their stepmothers (see Table 2). These negative relationships may make it more difficult for adolescents to develop the kind of social capital that can provide support, either emotionally or financially, for college aspirations. However, the results also indicate that adolescents who do have positive relationships with resident stepmothers should, on average, hold college expectations similar to those of adolescents living in married stepfather families.

Gender Analyses

Further analyses indicate that there are gender differences in the mechanisms driving adolescents' college expectations, and that the expectations of male and female youth are negatively affected by different kinds of non-intact families (See Table 5). The baseline model for male adolescents indicates that living in a single parent family is associated with a

[10] Measures of communication with resident mother-figures and father-figures are never significant predictors of expectations.

significantly negative effect on college expectations. Although not statistically significant, males living in married stepmother and cohabiting stepmother families also experience substantively lower expectations than do those living in married stepfather families.[11] Compared to males living with married stepfathers, those who live with single fathers and cohabiting stepmothers tend to experience the lowest college expectations (46% [1 – 0.54] and 42% [1 – 0.58] lower odds of holding high college expectations, respectively).

[TABLE 5 ABOUT HERE]

Controlling for demographic and family background variables in Model 2 fully explains the negative effects of living in a single parent family, and actually leads to an advantage among male youth in single mother homes. Of these variables, parental education, family income, and residential mobility appear to have the largest effects upon males' college expectations. However, their inclusion does not explain the lower (although insignificantly lower) expectations of youth living in married and cohabiting stepmother families.

Model 3 includes the resident family relationship variables. As with the full sample analyses, resident family relationships are positively related to college expectations, but resident parent-child conflict and parental supervision are not. Despite the addition of these variables to the model, male adolescents living in stepmother families remain disadvantaged in terms of their expectations. Males living in single mother families, on the other hand, appear to be the most advantaged, with significantly higher expectations than youth of similar backgrounds and family dynamics in married stepfather families.

[11] F-tests indicate that the negative effects associated with living in a married or cohabiting stepmother family are not significantly different from those associated with living in a single-mother or single-father family. The effects of living with a stepmother may not reach statistical significance due to small sample sizes.

For female youth, living in a cohabiting stepfather or a married stepmother family is negatively associated with college expectations. Overall, females who live with cohabiting stepfathers tend to experience the greatest magnitude of disadvantage.[12] These adolescents have approximately 60% lower odds (1 – 0.40) of holding high college expectations than do females living with a married stepfather. Controlling for background characteristics and resident family relationships partially mediates the negative effect of living in a cohabiting stepfather family (explaining about 20% of the disadvantage), but does not explain any of the negative effect associated with living in a married stepmother family.

As with the male analyses, the female analyses indicate that having positive family relationships leads to higher college expectations and that relationships with non-resident parents are not associated with college expectations. However, females appear to be less affected by family background characteristics, particularly family income and residential mobility, than males. Furthermore, after controlling for background characteristics and family relationship variables, females remain more negatively affected by living within the non-traditional stepfamily forms than males.

Although the results indicate that the college expectations of males and females are negatively affected by different kinds of non-intact families, both male and female youth face the greatest risk of lowered expectations when they live in the *most* non-traditional family forms. In particular, college expectations are lowered by living in cohabiting stepfather and stepmother families. The college expectations of both male and female youth also benefit from positive

[12] Interaction models indicate that females living in cohabiting stepfather families are significantly *less* likely ($p<0.05$) to have high college expectations than are males in this family form. Females living in cohabiting stepmother families, on the other hand, are moderately *more* likely ($p<0.10$) to have high college expectations than are males with cohabiting stepmothers. The college expectations of males and females living with married stepmothers do not significantly differ from one another.

resident family relationships.[13] For females, some of the disadvantage associated with living in a cohabiting stepfather family seems to result from having negative resident family relationships.[14]

GPA

Full Sample Analyses

As with college expectations, baseline analyses of the full sample indicate that family structure is significantly associated with GPA outcomes (See Table 6). Youth living in cohabiting stepfather, single father, single mother and "other" step- families report significantly lower GPAs than do those living in married stepfather families. Controlling for demographic characteristics in the second model mediates the negative effects associated with living in an "other" stepfamily, but does not explain the negative effects associated with single parent and cohabiting stepfather families.[15]

[TABLE 6 ABOUT HERE]

Controlling for family socioeconomic and background variables in the third model further mediates the disadvantage experienced by youth living in "other" stepfamilies and completely explains the disadvantage experienced by youth living in single-mother families. The depressed GPA scores of youth in these non-intact families seem to result from lower levels of

[13] Due to small sample size, I am unable to test for the effects of parent-specific relationship variables on the outcomes of males and females. However, one might assume that, as with the full sample, closeness with resident mothers would help to explain the disadvantage associated with living in a married stepmother family.

[14] Previous literature has indicated that adolescent girls tend to have a more difficult time adjusting to the presence of stepfathers, particularly cohabiting stepfathers, than do boys. If it was possible to test the effect of specific relationships with the cohabiting stepfather, I might be able to fully explain the disadvantage experienced by girls living in this non-intact family structure.

[15] Although statistically insignificant, the negative effect of living in an "other" stepfamily remains substantively large. Furthermore, f-tests indicate that the effect of living in this family type is not statistically different from the effects associated with living in a single parent home.

parental education, high levels of reliance on welfare, and more frequent residential mobility. Although significant predictors of college expectations, family income and mother's employment status are not associated with GPA outcomes among youth in non-intact families.

Model 4 indicates that reports of positive relationships with resident family members are associated with significantly higher GPA outcomes among youth in non-intact families. Furthermore, having recently experienced resident parent-child conflict is associated with significantly lower GPA outcomes. Despite significant direct effects, however, the introduction of these variables does not further explain the lowered GPA outcomes of adolescents living in cohabiting stepfather or single-father families. Youth in these families continue to earn GPAs that are approximately 1/5 of a letter grade lower than those of youth in married stepfather families. Parental supervision is also not a significant predictor of GPA among adolescents living in non-intact families.

The final two models include measures of relationships with non-resident parents. Unlike the results for college expectations, Model 5 indicates that communication, conflict, and closeness with non-resident parents are all associated with GPA outcomes (in the expected directions). Additionally, youth who have a deceased non-resident parent, or who do not know whether their non-resident parent is alive, tend to experience significantly higher GPA scores than do youth with a living non-resident parent. Model 6 also indicates a significant interaction between resident family relationships and having a deceased/unknown non-resident parent.

This finding supports the contention that the effect of resident family relationships on academic performance is contingent upon the relationship an adolescent has with his or her non-resident parent. In general, youth who have a living non-resident parent are less affected by their resident family relationships than are youth who have a deceased/unknown non-resident parent (see Figure 1). When an adolescent's non-resident parent is deceased/ unknown, having

extremely poor relationships with resident parents is associated with a significant drop in GPA. This finding makes sense because this group of children is seriously lacking in the kinds of relationships that lead to the development of social capital and to academic success. However, as relationships with resident parents improve, children with a deceased non-resident parent benefit more from those relationships than do children with living non-resident parents. Having a living non-resident parent may simply make family dynamics more confusing and difficult, and may reduce the importance a young person places upon their resident family relationships.

[FIGURE 1 ABOUT HERE]

Although non-resident parent relationships are significant predictors of GPA among youth in non-intact families, the introduction of these measures into the analytical model does little to further explain why youth living in cohabiting stepfather and single-father families perform more poorly than youth in traditional stepfamilies and single-mother families.[16]

Resident Parent-Specific Analyses

As with college expectations, I conducted GPA analyses that included relationship information specific to each resident parent. Unfortunately, the addition of this information to the models did not further explain the negative GPA effects associated with living in a single-father family. Since I had to exclude from the parent-specific models all respondents living in cohabiting stepfamilies, I was unable to further explore the negative effects of living in a cohabiting stepfather family (Results not shown).

Thus, the achievement disadvantage faced by youth in "other" stepfamilies and single-mother families can be explained by the fact that these youth are more likely to hold

[16] F-tests indicate that youth in cohabiting stepfather and single-father families tend to earn significantly ($p<0.05$) lower GPAs than youth in married stepfather and single-mother families.

demographic and socioeconomic characteristics that place them at risk for poor outcomes. The disadvantage faced by youth in cohabiting stepfather and single-father families, however, can not be explained by these characteristics. Furthermore, resident and non-resident family relationships and processes, although significant predictors of GPA for the non-intact family population in general, do not explain the enduring academic disadvantage faced by these youth.

School-Related Behavior Problems

Full Sample Analyses

While the previous analyses have shown that youth living in married stepfather families tend to experience higher college expectations and better academic performance than youth in most of the other non-intact family forms, much less variation exists in reported levels of school-related behavior problems. Only adolescents living in cohabiting stepfather and single-father families experience significantly higher rates of school-related behavior problems than do adolescents in married stepfather families (see Table 7, Model 1).[17] Controlling for demographic and socioeconomic characteristics in the second and third models does not explain the negative effects associated with these two family forms. In fact, doing so actually increases the negative effect associated with single-father families. Interestingly, socioeconomic background characteristics are not significant predictors of school-related behavior problems.

[TABLE 7 ABOUT HERE]

Family relationships and processes, however, do appear to be important predictors of school-related behavior problems. Model 4 indicates that resident family relationships and

[17] The effect of living in a single-father family is only marginally significant ($p<0.10$). Adolescents living in cohabiting stepfather and single-father families report significantly higher levels of behavior problems than do those living in single-mother families ($p<0.05$). Youth in cohabiting stepfather families also report marginally higher ($p<0.10$) levels of behavior problems than do those in married stepmother families.

resident parent-child conflict are significantly associated with school behavior. Controlling for these factors reduces to insignificance the effect of living with a cohabiting stepfather and to marginal significance the effect of living in a single-father family.[18] Furthermore, the introduction of variables measuring relationships with non-resident parents (Model 5) completely mediates the negative effect associated with single-father families. In particular, the experience of conflict with non-resident parents is associated with higher levels of adolescent behavior problems. These findings suggest that positive relationships with both resident and non-resident parent-figures independently promote good school-related behavior. Thus, the poorer resident family relationships and higher levels of parent-child conflict experienced by adolescents living in cohabiting stepfather and single-father families may explain why these adolescents, on average, experience higher levels of school-related behavior problems than do adolescents in the more traditional non-intact family forms.

Model 6 includes an interaction term, which indicates that the positive effect of resident family relationships on school-related behavior is also conditioned by whether or not youth experience conflict with their non-resident parent. The beneficial effects of positive resident family relationships are significantly weaker if an adolescent has recently experienced conflict with his or her non-resident parent (see Figure 2). However, adolescents who are disadvantaged by poor resident family relationships actually tend to have fewer school-related behavior problems when they have recently experienced conflict with their non-resident parent. This unexpected association may result from the fact that youth who experience high levels of conflict

[18] F-tests indicate that the effects of living in these two different family forms are not significantly different from one another.

with a non-resident parent also tend to report higher levels of closeness with that parent.[19] Conflict with non-resident parents may also indicate a greater level of interaction and parental involvement in day-to-day activities. Higher levels of closeness and interaction with non-resident parents, even when contentious, may serve to protect youth from the damaging effects of poor resident family relationships.

[FIGURE 2 ABOUT HERE]

Resident Parent-Specific Analyses

Although the family relationship/process variables fully mediated the differential family structure effects, I conducted analyses that included relationship information specific to each resident parent to determine whether any additional insights could be gained (see Appendix B, Table2). Since I had to exclude from the parent-specific models all respondents living in cohabiting stepfamilies, I was unable to further explore the negative effects of living in a cohabiting stepfather family. However, I found that for adolescents in single-father families, closeness to and conflict with resident fathers are both significantly related to school behavior outcomes.[20] Although not significant for the full sample, I also find that parental supervision in single-father families is significantly associated with behavior problems. Thus, the lower levels of supervision found in many single-father families can, in part, explain the greater incidence of behavioral problems among youth in those families.

[19] There is a significant positive correlation between conflict with a non-resident parent and the level of closeness that an adolescent reports having with that parent, especially when the non-resident parent is a biological father.

[20] Communication with resident fathers is not significantly associated with school-related behavior.

Discussion

From the analyses I can draw several main conclusions. First, the academic outcomes of adolescents in different types of non-intact families vary tremendously. The outcomes of children living in non-traditional stepfamilies and in single parent families are, on average, more problematic than those of adolescents in married stepfather families. While controlling for demographic, socioeconomic, and family background characteristics helps to explain the lowered academic outcomes of adolescents living in some of the stepfamily and single parent family forms, enduring disadvantages, although small, do remain. For example, youth living in married stepmother families are significantly less likely than those living in married stepfather families to hold high expectations for adult educational attainment. Additionally, youth in cohabiting stepfather and single-father families tend to experience the poorest academic achievement and school-related behavior outcomes.

Second, experiencing positive resident family relationships, which are crucial to the development of social capital, is associated with higher college expectations, higher GPA scores, and lower levels of school-related behavior problems among youth in non-intact families. A subjective rating of relationship quality with resident family members is the most consistent predictor of academic success across all of the different outcomes. In fact, analyses that include information about relationships with each specific resident parent-figure indicate that poorer quality relationships with married stepmothers can fully explain the lowered college expectations of youth in these families.

Thus, family structure differentials in college expectations appear to be largely driven by family background variables, SES, and the quality of relationships held with others in the residential family unit. Recent experiences with resident parent-child conflict also appear to be particularly important in the determination of the more behavioral aspects of adolescent

educational outcomes, such as GPA scores and school behavior problems. While measures of conflict, combined with ratings of resident family relationships, do not explain family structure differentials in GPA scores, these measures do fully explain higher levels of school-related behavior problems among adolescents in cohabiting stepfather families and most of the elevated behavior problems among those in single-father families. Within single-father families, lower levels of parental supervision also appear to play a role in increasing rates of school behavior problems.

Relationships with non-resident parents are also associated with adolescent GPA scores and school behavior problems. The analysis indicates that higher levels of non-resident parent-child conflict can explain the remainder of the difference in behavior problems found between youth in single-father and married stepfather families. In addition, this study indicates that the effect of resident family relationships on the more behaviorally driven academic outcomes is actually *moderated* by non-resident parent relationships. In terms of GPA, adolescents who have a living non-resident parent benefit less from positive resident family relationships than do those who have a deceased/unknown non-resident parent. Further, in terms of behavior problems, youth who have experienced conflict with non-resident parents benefit less from positive resident family relationships than do youth who have not.

These findings suggest that the kinds of family relationships that allow for the development of social capital are important to the academic outcomes of youth. While expectations of attending college appear to be affected primarily by characteristics of and relationships within the resident family unit, the more behavioral-based outcomes appear to be affected by an adolescent's relationships with both resident *and* non-resident family members.

As was hypothesized, having positive non-resident parent relationships is good for the academic achievement and school-related behavior of youth. However, interaction with non-

resident parents can also reduce the protective effect of having good relationships with resident family members. Having a non-resident parent inherently makes overall family dynamics more difficult. When resident family relationships are very poor, a non-resident parent may help the child to compensate for the support he or she is missing at home (see Figures 1 or 2). Even experiencing conflict with a non-resident parent may be beneficial when a child has very poor resident family relationships, as that indicates some form of involvement on the part of the non-resident parent (see Figure 2). However, when resident family relationships are good and a child is receiving adequate support at home, having a non-resident parent may simply cause additional family stress and conflict and may reduce the level of importance that a child places upon relationships with his or her resident parent(s). As a result, positive relationships with resident family members may become less effective mechanisms for the development of social capital and socialization, and less effective at promoting academic success.

This paper also finds that gender differences exist in the effects of family structure upon the college expectations of youth in non-intact families, but not in the effects upon adolescent GPA or school-related behavior problems. Overall, the expectations of females appear to be more negatively affected by living in the various non-intact family structures than are the expectations of males. However, the family relationships and processes explored here seem to affect both males and females in a similar manner.

Finally, college expectations of youth in non-intact families appear to be less affected by family dynamics (and more by family SES) than either of the behavioral-based academic outcomes. While the family structures associated with poor school behavior are generally also associated with lowered GPA scores, GPA tends to be negatively affected by a greater number of non-traditional family structures than are school-related behavior problems. However, living within the most non-traditional of family forms, particularly with a cohabiting stepfather or a

single-father, has a consistently negative effect upon both of these academic outcomes. Poorer family dynamics explain the more negative school behavior outcomes and a portion of the GPA disadvantage of these children. However, unexplained GPA disadvantages remain.

Conclusion

This paper uses data from the *National Longitudinal Study of Adolescent Health (Add Health)* to explore the family contexts of children living in non-intact families more fully than has previous research. By focusing on adolescents' relationships and interactions with both their resident and non-resident family members, this research provides important insight into the interpersonal dynamics of contemporary stepfamilies and single parent. Furthermore, examining the ways in which these relationships influence one another helps us to better understand how having a *complex set of family relationships* that extend beyond the confines of a single household influences academic outcomes among adolescents.

Results indicate that adolescents in different types of non-intact families have significantly different academic outcomes. In terms of academic achievement and school-related behavior, the most disadvantaged children tend to be those living in the most non-traditional families, particularly cohabiting stepfather and single-father families. Living with a married stepmother, however, appears to be the family structure most detrimental to an adolescent's expectations for future college attainment. Family relationships are significant predictors of these academic outcomes, and can explain some of the disadvantage faced by youth in non-traditional stepparent and single parent family forms.

While positive relationships with both resident and non-resident parent-figures independently promote academic achievement and good school-related behavior, the effects of resident family relationships are conditioned by the existence and quality of relationships with

non-resident parents. When resident family dynamics are poor, involvement with non-resident parents helps to bolster academic outcomes, even if the involvement is not always positive in nature. Simply having a non-resident parent may provide children with some sense of social and emotional support. However, when resident family dynamics are good, and adolescents are receiving adequate levels of support and emotional care from those within their immediate household, the existence of a non-resident parent may actually make a child's life more stressful and complicated. Conflict with non-resident parents, which is more likely to occur when contact is frequent, can also weaken the beneficial effects of good resident family relationships. Despite this moderating effect, having positive relationships with both resident and non-resident parents (when the non-resident parent is known to be alive) is beneficial for the outcomes of youth in non-intact families.

Most young people in non-intact families have a living non-resident parent with whom they have some level of contact. As such, considering the effects of residential family structure upon adolescent outcomes is not enough. Research in this field must also include an examination of family relationships that stretch across households and begin to explore the specific ways in which positive relationships, with both resident and non-resident parent-figures, can be actively fostered among children from non-traditional families. We must also learn more about the ways in which relationships with parent-figures outside of the home can impact relationships with family members inside of the home.

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Table 1: Weighted Means of Academic Outcomes, by Non-Intact Family Structure				
Family Structure	**N**	**High College Expectations**	**Current GPA**	**School-Related Behavior Problems**
All Stepfamilies	2244	**0.47**	**2.72**	**1.05**
Married Stepfather	1536	0.50	2.78	1.02
Married Stepmother	322	0.40	2.47	1.22
Cohabiting Stepfather	298	0.37	2.74	1.04
Cohabiting Stepmother	36	0.53	2.73	0.98
"Other" Stepfamily	52	0.51	2.55	1.03
All Single-parent Families	3279	**0.45**	**2.65**	**1.03**
Single Mother	2887	0.46	2.67	1.01
Single Father	392	0.38	2.51	1.14
All Non-Intact Families	**5523**	**0.46**	**2.68**	**1.04**

Table 2: Weighted Means of Family Relationship and Family Process Variables, by Non-Intact Family Structure

Family Relationship and Family Process Variables	Full Sample	All Step-Families	Married Step-Father	Married Step-Mother	Cohabiting Step-Father	Cohabiting Step-Mother	"Other" Step-Family	All Single-Parent Families	Single Mother	Single Father
Resident Parents/Family										
Closeness w/Resident Mother	**4.30**	**4.27**	4.32	4.05	4.20	.	4.24	**4.33**	4.33	.
Closeness w/Resident Father	**3.91**	**3.88**	3.77	4.30	.	4.09	4.23	**4.01**	.	4.01
Communication w/Resident Mother	**2.08**	**2.10**	2.18	1.73	2.05	.	1.72	**2.07**	2.07	.
Communication w/Resident Father	**1.50**	**1.40**	1.29	1.83	.	1.88	1.36	**1.90**	.	1.90
Overall Relationship with Family	**3.92**	**3.89**	3.91	3.93	3.81	3.76	3.84	**3.94**	3.96	3.77
Conflict w/Resident Parents	**0.39**	**0.43**	0.44	0.41	0.45	0.29	0.37	**0.36**	0.36	0.37
Resident Parental Supervision	**2.67**	**2.84**	2.92	2.86	2.65	2.25	2.07	**2.56**	2.61	2.19
Non-Resident Parent(s)										
Non-Resident Mother Deceased/Unknown	**0.02**	**0.03**	.	0.18	.	0.18	0.30	**0.02**	.	0.13
Non-Resident Father Deceased/Unknown	**0.22**	**0.23**	0.27	.	0.23	.	0.30	**0.22**	0.25	.
Closeness w/Non-Resident Mother	**3.30**	**3.12**	.	3.16	.	3.22	2.66	**3.35**	.	3.46
Closeness w/Non-Resident Mother - Known Living	**3.74**	**3.64**	.	3.64	.	3.70	3.60	**3.82**	.	3.84
Closeness w/Non-Resident Father	**2.54**	**2.54**	2.51	.	2.67	.	2.81	**2.56**	2.56	.
Closeness w/Non-Resident Father - Known Living	**3.09**	**3.10**	3.08	.	3.17	.	3.42	**3.09**	3.09	.
Communication w/Non-Resident Mother	**1.76**	**0.76**	.	1.61	.	1.39	0.90	**0.94**	.	1.94
Communication w/Non-Resident Mother - Known Living	**2.08**	**1.91**	.	1.97	.	1.70	1.56	**2.22**	.	2.25
Communication w/Non-Resident Father	**1.08**	**1.09**	1.07	.	1.14	.	1.20	**1.08**	1.08	.
Communication w/Non-Resident Father - Known Living	**1.46**	**1.48**	1.48	.	1.48	.	1.63	**1.44**	1.44	.
Conflict w/Non-Resident Parent(s)	**0.11**	**0.09**	0.07	0.12	0.08	0.20	0.39	**0.12**	0.11	0.22
N	**5523**	**2244**	1536	322	298	36	52	**3279**	2887	392

* Measures for Contact, Closeness and Communication with Non-Resident Parents are created for all youth in non-intact families. For descriptive purposes, these measures are also shown separately for those youth who know that their non-resident parent is alive. To retain an adequate sample size, the more inclusive measures are used for the analytical portion of the paper, along with a control variable indicating whether or not the non-resident parent is deceased/unknown.

Table 3: Weighted Means of Family Background and Control Variables, by Non-Intact Family Structure

	Full Sample	**All Step-Families**	Married Step-Father	Married Step-Mother	Cohabiting Step-Father	Cohabiting Step-Mother	"Other" Step-Family	**All Single Parent Families**	Single Mother	Single Father
Family Background Variables										
Proportion of Life Spent in Current Residence	**0.33**	**0.29**	0.29	0.30	0.25	0.32	0.34	**0.36**	0.36	0.36
Proportion of Life spent in Current Family Structure	**0.71**	**0.42**	0.47	0.33	0.25	0.07	0.54	**0.91**	0.94	0.73
Parents < H.S. Education	**0.16**	**0.12**	0.09	0.08	0.20	0.16	0.25	**0.19**	0.19	0.18
Parents Have H.S. Education	**0.35**	**0.35**	0.34	0.32	0.41	0.41	0.19	**0.36**	0.36	0.35
Parents > H.S. Education	**0.44**	**0.49**	0.53	0.54	0.29	0.37	0.37	**0.40**	0.39	0.42
Parents Education Missing	**0.05**	**0.05**	0.03	0.06	0.09	0.06	0.19	**0.06**	0.06	0.05
Family Income <= $15,999	**0.25**	**0.13**	0.10	0.09	0.25	0.19	0.34	**0.33**	0.36	0.12
Family Income $16,000-$34,999	**0.26**	**0.23**	0.23	0.13	0.37	0.15	0.25	**0.28**	0.28	0.26
Family Income $35,000-$59,999	**0.19**	**0.25**	0.27	0.31	0.14	0.11	0.11	**0.14**	0.12	0.24
Family Income > $59,999	**0.11**	**0.20**	0.22	0.28	0.09	0.20	0.12	**0.05**	0.05	0.10
Family Income Missing	**0.19**	**0.18**	0.18	0.19	0.15	0.36	0.18	**0.20**	0.19	0.28
Welfare Use	**0.27**	**0.17**	0.16	0.11	0.30	0.09	0.25	**0.33**	0.37	0.10
Welfare Use Missing	**0.12**	**0.11**	0.11	0.10	0.07	0.19	0.12	**0.12**	0.11	0.21
Mother's Working Status (full-time/not full-time)	**0.50**	**0.51**	0.56	0.40	0.50	0.00	0.17	**0.49**	0.56	0.00
Control Variables										
Male	**0.50**	**0.52**	0.50	0.62	0.51	0.49	0.48	**0.49**	0.47	0.62
Age	**15.57**	**15.55**	15.57	15.62	15.39	15.14	15.64	**15.59**	15.54	15.89
1st Generation Immigrant	**0.05**	**0.05**	0.05	0.06	0.02	0.03	0.08	**0.05**	0.04	0.06
2nd Generation Immigrant	**0.09**	**0.08**	0.08	0.07	0.12	0.07	0.10	**0.09**	0.09	0.09
3rd Generation Immigrant	**0.87**	**0.87**	0.87	0.87	0.85	0.90	0.82	**0.86**	0.86	0.85
White	**0.61**	**0.71**	0.72	0.78	0.48	0.75	0.41	**0.53**	0.51	0.72
Black/Afro-Caribbean	**0.23**	**0.13**	0.12	0.07	0.37	0.02	0.36	**0.30**	0.32	0.13
Hispanic	**0.13**	**0.13**	0.13	0.11	0.36	0.09	0.18	**0.13**	0.13	0.10
Asian	**0.03**	**0.02**	0.02	0.03	0.02	0.04	0.03	**0.03**	0.02	0.04
Number of Siblings	**1.42**	**1.63**	1.64	1.98	1.30	1.05	1.71	**1.27**	1.32	0.89
N	**5523**	2244	1536	322	298	36	52	3279	2887	392

Table 4: High College Expectations by Non-Intact Family Structure, Logistic Regression Odds Ratios and Standard Errors

Independent Variables	Model 1		Model 2		Model 3		Model 4	
Married Stepmother Family	**0.648** *	0.113	**0.694** *	0.127	**0.619** **	0.117	**0.604** **	0.118
Cohabiting Stepfather Family	**0.588** ***	0.101	**0.559** ***	0.098	0.777	0.148	0.806	0.157
Cohabiting Stepmother Family	1.116	0.511	0.982	0.432	1.256	0.560	1.325	0.602
"Other" Stepfamily	1.042	0.415	1.052	0.404	1.469	0.646	1.542	0.687
Single Mother Family	0.842 ^	0.085	**0.785** *	0.081	1.122	0.164	1.166	0.172
Single Father Family	**0.597** ***	0.115	**0.588** ***	0.112	0.815	0.172	0.884	0.188
Male			**0.561** ***	0.043	**0.557** ***	0.046	**0.534** ***	0.043
Age			**0.912** ***	0.025	**0.908** ***	0.024	**0.934** *	0.025
1st Generation Immigrant			1.020	0.208	1.172	0.237	1.091	0.229
2nd Generation Immigrant			0.947	0.149	0.942	0.150	0.942	0.151
Black			1.090	0.112	**1.269** **	0.117	**1.236** *	0.116
Hispanic			**0.548** ***	0.079	**0.657** ***	0.090	**0.656** ***	0.091
Asian			1.823 ^	0.593	1.774	0.618	1.907 ^	0.691
Number of Resident Siblings			**0.929** *	0.028	1.010	0.035	1.018	0.034
Parents < H.S. Education					**0.468** ***	0.056	**0.472** ***	0.057
Parents Have H.S. Education					**0.532** ***	0.050	**0.528** ***	0.050
Parents Education Missing					**0.367** ***	0.069	**0.361** ***	0.069
Family Income <= $15,999					**0.577** ***	0.091	**0.566** ***	0.090
Family Income $16,000-$34,999					**0.609** ***	0.083	**0.607** ***	0.084
Family Income $35,000-$59,999					**0.734** *	0.109	**0.739** *	0.111
Family Income Missing					0.868	0.148	0.848	0.145
Welfare Use					**0.661** ***	0.084	**0.655** ***	0.085
Welfare Use Missing					**0.694** *	0.123	0.717 ^	0.127
Resident Mother Employed Full-time					**1.227** ***	0.097	**1.231** ***	0.097
Proportion of Life in Current Family Structure					0.853	0.151	0.798	0.144
Proportion of Life in Current Residence					**1.348** *	0.165	**1.363** *	0.166
Overall Resident Family Relationship							**1.370** ***	0.09
2 Log Likelihood	-3638.7		-3531.5 ***		-3368.5 ***		-3335.4 ***	

N=5,295

^p<0.10; *p<0.05; ** p<0.01; *** p<0.001

Table 5: High College Expectations by Family Structure and Gender, Logistic Regression Odds Ratios and Standard Errors												
	Males						Females					
Independent Variables	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Married Stepmother Family	0.723	0.192	0.633	0.181	0.620	0.184	0.650 ^	0.153	**0.575** *	0.145	**0.562** *	0.140
Cohabiting Stepfather Family	0.860	0.232	1.034	0.286	1.094	0.307	**0.400** ***	0.092	**0.585** *	0.145	**0.596** *	0.149
Cohabiting Stepmother Family	0.578	0.336	0.554	0.354	0.635	0.406	2.168	1.389	2.845	1.889	2.815	1.923
"Other" Stepfamily	0.898	0.450	1.380	0.682	1.541	0.821	1.180	0.672	1.707	1.296	1.748	1.301
Single Mother Family	0.815 ^	0.095	1.351 ^	0.212	**1.464** *	0.267	0.835	0.117	0.924	0.178	0.934	0.182
Single Father Family	**0.537** ***	0.119	0.725	0.182	0.821	0.208	0.797	0.232	0.964	0.325	1.013	0.343
Age			**0.887** ***	0.033	**0.915** *	0.034			**0.926** *	0.035	0.951	0.036
1st Generation Immigrant			1.140	0.320	1.087	0.301			1.082	0.277	1.004	0.260
2nd Generation Immigrant			1.092	0.245	1.052	0.236			0.832	0.179	0.860	0.185
Black			**1.286** *	0.160	1.228	0.155			1.254	0.180	1.240	0.180
Hispanic			**0.631** ***	0.108	**0.632** ***	0.110			0.697 ^	0.140	0.689 ^	0.140
Asian			**2.705** ***	0.924	**3.105** ***	1.168			1.370	0.679	1.400	0.683
Number of Co-resident Siblings			1.012	0.049	1.027	0.049			0.999	0.054	1.003	0.054
Parents < H.S. Education			**0.553** ***	0.107	**0.560** ***	0.109			**0.415** ***	0.064	**0.419** ***	0.065
Parents Have H.S. Education			**0.510** ***	0.073	**0.510** ***	0.072			**0.541** ***	0.072	**0.536** ***	0.072
Parents Education Missing			**0.344** ***	0.094	**0.326** ***	0.093			**0.386** ***	0.105	**0.400** ***	0.111
Family Income <= $15,999			**0.475** ***	0.113	**0.462** ***	0.111			*0.686*	0.163	*0.676*	0.162
Family Income $16,000-$34,999			**0.518** ***	0.092	**0.528** ***	0.094			*0.694*	0.160	0.678 ^	0.159
Family Income $35,000-$59,999			**0.636** *	0.129	**0.631** *	0.127			0.825	0.182	0.842	0.188
Family Income Missing			0.810	0.191	0.813	0.189			0.931	0.229	0.882	0.220
Welfare Use			0.700 ^	0.144	0.674 ^	0.141			**0.625** ***	0.090	**0.629** ***	0.091
Welfare Use Missing			0.664 ^	0.158	0.676 ^	0.160			*0.700*	0.165	*0.740*	0.173
Resident Mother Employed Full-time			**1.287** *	0.156	**1.272** *	0.153			1.162	0.151	1.174	0.155
Proportion of Life in Current Family Structure			**0.545** **	0.132	**0.486** ***	0.123			1.356	0.368	1.311	0.355
Proportion of Life in Current Residence			**1.644** ***	0.280	**1.721** ***	0.298			1.104	0.223	1.089	0.216
Overall Resident Family Relationship					**1.428** ***	0.144					**1.337** ***	0.093
2 Log Likelihood	-1708.3		-1585.8 ***		-1566.4 ***		-1868.2		-1761.4 ***		-1746.6 ***	
			N=2,570						N=2,725			

^p<0.10; *p<0.05; ** p<0.01; *** p<0.001

Table 6: GPA by Non-Intact Family Structure, OLS Regression Coefficients and Standard Errors

Independent Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Married Stepmother Family	-0.040	0.065	-0.013	0.063	-0.022	0.062	-0.031	0.064	-0.032	0.064	-0.032	0.064
Cohabiting Stepfather Family	**-0.311** ***	0.067	**-0.306** ***	0.066	**-0.205** ***	0.065	**-0.192** ***	0.064	**-0.190** ***	0.064	**-0.190** ***	0.064
Cohabiting Stepmother Family	-0.048	0.167	-0.099	0.170	-0.024	0.163	-0.021	0.169	-0.009	0.169	-0.004	0.170
"Other" Stepfamily	**-0.246** *	0.111	-0.173	0.107	-0.093	0.106	-0.067	0.099	-0.053	0.104	-0.044	0.103
Single Mother Family	**-0.111** ***	0.034	**-0.085** *	0.034	-0.039	0.051	-0.043	0.051	-0.041	0.053	-0.039	0.052
Single Father Family	**-0.269** ***	0.068	**-0.257** ***	0.065	**-0.235** ***	0.067	**-0.231** ***	0.066	**-0.239** ***	0.071	**-0.238** ***	0.071
Male			**-0.264** ***	0.029	**-0.256** ***	0.029	**-0.271** ***	0.029	**-0.275** ***	0.029	**-0.277** ***	0.029
Age			-0.007	0.013	-0.011	0.012	-0.001	0.012	-0.001	0.012	0.001	0.012
1st Generation Immigrant			0.036	0.099	0.085	0.098	0.049	0.095	0.044	0.093	0.039	0.092
2nd Generation Immigrant			-0.054	0.053	-0.049	0.053	-0.047	0.052	-0.042	0.052	-0.042	0.052
Black			**-0.210** ***	0.044	**-0.175** ***	0.043	**-0.195** ***	0.042	**-0.199** ***	0.041	**-0.200** ***	0.041
Hispanic			**-0.181** ***	0.054	**-0.133** *	0.056	**-0.138** *	0.056	**-0.139** **	0.056	**-0.138** **	0.055
Asian			0.137	0.092	0.135	0.095	0.144	0.096	0.131	0.098	0.135	0.096
Number of Resident Siblings			-0.020 ^	0.011	-0.005	0.011	-0.004	0.011	-0.005	0.011	-0.005	0.011
Parents < H.S. Education					**-0.219** ***	0.048	**-0.215** ***	0.047	**-0.215** ***	0.047	**-0.214** ***	0.046
Parents Have H.S. Education					**-0.161** ***	0.034	**-0.165** ***	0.034	**-0.166** ***	0.034	**-0.167** ***	0.034
Parents Education Missing					**-0.357** ***	0.085	**-0.365** ***	0.084	**-0.379** ***	0.085	**-0.378** ***	0.085
Family Income <= $15,999					-0.047	0.058	-0.044	0.057	-0.036	0.058	-0.034	0.058
Family Income $16,000-$34,999					-0.062	0.061	-0.061	0.061	-0.056	0.061	-0.055	0.061
Family Income $35,000-$59,999					0.033	0.062	0.039	0.061	0.045	0.061	0.045	0.061
Family Income Missing					-0.030	0.063	-0.034	0.062	-0.025	0.063	-0.023	0.063
Welfare Use					-0.077 ^	0.040	-0.075 ^	0.040	-0.074 ^	0.039	**-0.077** *	0.038
Welfare Use Missing					-0.018	0.050	-0.002	0.049	-0.011	0.049	-0.012	0.049
Resident Mother Employed Full-time					0.000	0.030	-0.001	0.030	0.002	0.030	0.002	0.030
Proportion of Life in Current Family Structure					0.029	0.063	0.020	0.063	0.033	0.066	0.031	0.066
Proportion of Life in Current Residence					**0.095** *	0.05	**0.094** *	0.045	**0.089** *	0.045	**0.089** *	0.046
Overall Resident Family Relationship							**0.104** ***	0.025	**0.092** ***	0.024	**0.071** **	0.027
Resident Parent-Child Conflict							**-0.092** ***	0.028	**-0.081** **	0.029	**-0.080** **	0.029
Non-resident Parent Deceased/Unknown									**0.125** ***	0.043	-0.212	0.187
Closeness with Non-resident Parent									0.023 ^	0.013	**0.025** *	0.013
Communication with Non-resident Parent									**0.026** *	0.012	**0.025** *	0.012
Conflict with Non-resident Parent									**-0.124** **	0.050	**-0.129** **	0.050
Resident Family Relationship X Non-resident Parent Deceased/Unknown											0.085 ^	0.044
R-Squared	0.014		0.065 ***		0.094 ***		0.108 ***		0.115 ***		0.116 *	

N=4,784

^p<0.10; *p<0.05; ** p<0.01; *** p<0.001

Table 7: School-Related Behavior Problems by Non-Intact Family Structure, OLS Regression Coefficients and Standard Errors

Independent Variables	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Married Stepmother Family	0.020	0.056	0.003	0.056	-0.011	0.056	-0.002	0.053	-0.012	0.054	-0.010	0.054
Cohabiting Stepfather Family	**0.169** *	0.073	**0.160** *	0.075	**0.145** *	0.074	0.114	0.071	0.116	0.071	0.117	0.071
Cohabiting Stepmother Family	-0.040	0.118	-0.059	0.108	-0.090	0.104	-0.125	0.108	-0.140	0.110	-0.142	0.110
"Other" Stepfamily	0.027	0.156	0.065	0.167	0.071	0.164	0.039	0.173	0.012	0.171	-0.015	0.167
Single Mother Family	-0.006	0.035	0.019	0.038	0.074	0.052	0.066	0.051	0.051	0.050	0.053	0.050
Single Father Family	0.124 ^	0.065	0.119 ^	0.065	**0.146** *	0.068	0.110 ^	0.065	0.078	0.066	0.081	0.065
Male			**0.165** ***	0.029	**0.165** ***	0.028	**0.191** ***	0.028	**0.192** ***	0.027	**0.192** ***	0.027
Age			**-0.035** ***	0.011	**-0.034** ***	0.011	**-0.058** ***	0.011	**-0.058** ***	0.011	**-0.057** ***	0.011
1st Generation Immigrant			**-0.286** ***	0.075	**-0.287** ***	0.075	**-0.195** ***	0.071	**-0.184** **	0.073	**-0.185** **	0.072
2nd Generation Immigrant			-0.091 ^	0.054	-0.090	0.056	-0.088 ^	0.052	-0.099 ^	0.052	-0.099 ^	0.052
Black			**-0.100** ***	0.035	**-0.097** *	0.037	**-0.066** *	0.034	-0.064	0.034	-0.061 ^	0.033
Hispanic			0.044	0.061	0.049	0.063	0.049	0.058	0.053	0.058	0.059	0.058
Asian			-0.050	0.073	-0.048	0.073	-0.084	0.072	-0.076	0.073	-0.068	0.068
Number of Resident Siblings			0.001	0.012	0.001	0.012	-0.002	0.011	-0.001	0.011	-0.001	0.011
Parents < H.S. Education					-0.033	0.048	-0.038	0.046	-0.033	0.047	-0.034	0.047
Parents Have H.S. Education					-0.044	0.030	-0.037	0.028	-0.034	0.028	-0.035	0.028
Parents Education Missing					-0.029	0.086	-0.019	0.080	-0.012	0.079	-0.018	0.078
Family Income <= $15,999					-0.017	0.058	-0.015	0.058	-0.016	0.058	-0.024	0.058
Family Income $16,000-$34,999					0.000	0.049	0.000	0.047	0.004	0.048	0.000	0.048
Family Income $35,000-$59,999					0.022	0.047	0.015	0.044	0.016	0.044	0.011	0.044
Family Income Missing					-0.033	0.068	-0.017	0.064	-0.017	0.064	-0.025	0.064
Welfare Use					0.033	0.037	0.037	0.039	0.044	0.039	0.048	0.039
Welfare Use Missing					-0.009	0.059	-0.045	0.056	-0.043	0.056	-0.036	0.056
Resident Mother Employed Full-time					-0.021	0.033	-0.031	0.034	-0.034	0.034	-0.034	0.034
Proportion of Life in Current Family Structure					-0.102 ^	0.058	-0.069	0.057	-0.054	0.057	-0.057	0.058
Proportion of Life in Current Residence					-0.020	0.043	**-0.015** *	0.043	-0.013	0.042	-0.013	0.042
Overall Resident Family Relationship							**-0.233** ***	0.025	**-0.229** ***	0.025	**-0.248** ***	0.026
Resident Parent-Child Conflict							**0.131** ***	0.030	**0.120** ***	0.030	**0.116** ***	0.030
Parental Supervision							-0.023	0.015	-0.022	0.015	-0.021	0.015
Non-resident Parent Deceased/Unknown									**-0.065** *	0.032	**-0.064** *	0.032
Conflict with Non-resident Parent									**0.116** *	0.049	**-0.584** *	0.244
Resident Family Relationship X Conflict with Non-resident Parent											**0.184** ***	0.062
R-Squared	0.005		0.032 ***		0.035		0.098 ***		0.103 ***		0.105 ***	

N=4,880

^p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 1 GPA by Quality of Resident Family Relationships

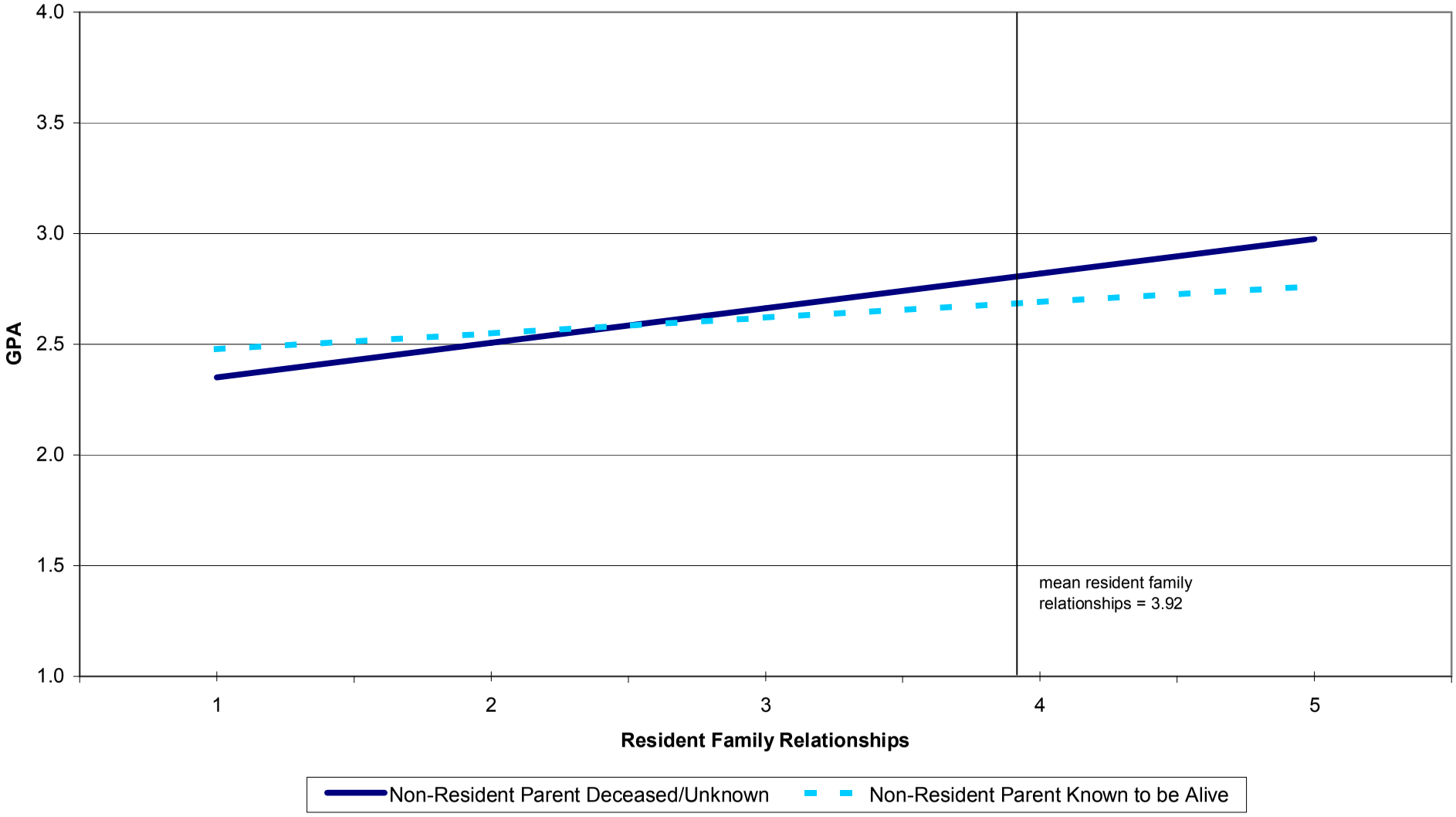
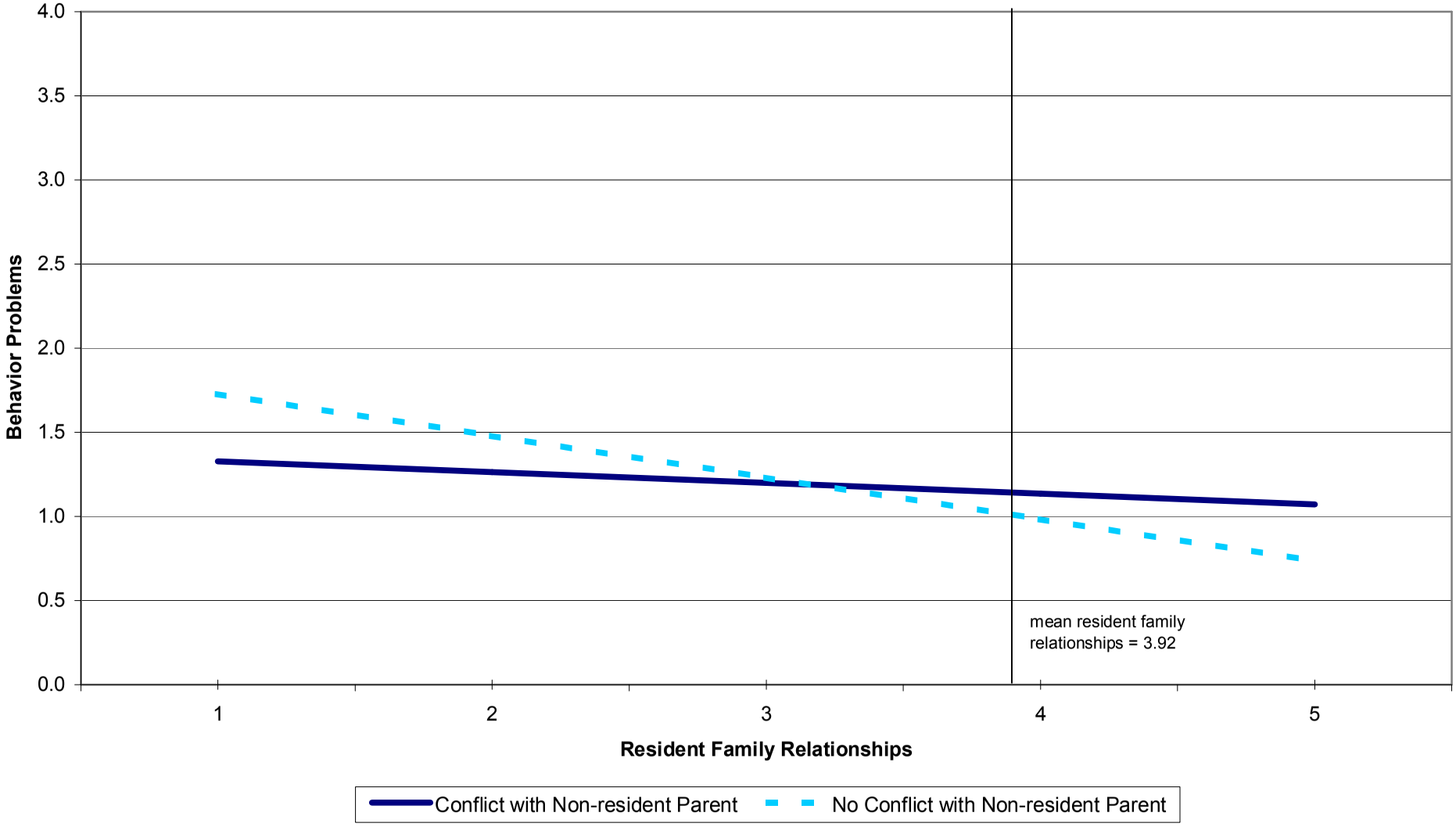


Figure 2 School-related Behavior Problems by Quality of Resident Family Relationships



APPENDIX A: CONSTRUCTION OF INDICES

School-Related Behavior Problems Index (4 items): Cronbach's Alpha = 0.689

Answers range from 0 (never) to 4 (everyday).

1. How often do you have trouble getting along with other students?
2. How often do you have trouble getting along with your teachers?
3. How often do you have trouble paying attention in school?
4. How often do you have trouble getting your homework done?

Resident Mother Closeness Index (4 items): Cronbach's Alpha = 0.858

Questions pertain to resident biological mothers and resident married stepmothers. Answers range from 1 (not at all/strongly disagree) to 5 (quite a bit/strongly agree).

1. How close do you feel to your mother?
2. Most of the time, your mother is warm and loving toward you.
3. You are satisfied with the way your mother and you communicate with each other.
4. Overall, you are satisfied with your relationship with your mother.

Resident Father Closeness Index (4 items): Cronbach's Alpha = 0.891

Questions pertain to resident biological fathers and resident married stepfathers. Answers range from 1 (not at all/strongly disagree) to 5 (quite a bit/strongly agree).

1. How close do you feel to your father?
2. Most of the time, your father is warm and loving toward you.
3. You are satisfied with the way your father and you communicate with each other.
4. Overall, you are satisfied with your relationship with your father.

Resident Family Relationship Index (5 items): Cronbach's Alpha = 0.744

Questions pertain to resident family members. Answers range from 1 (not at all) to 5 (very much).

1. How much do you feel that your parent(s) care about you?
2. How much do you feel that people in your family understand you?
3. How much do you feel that you want to leave home? (recoded in opposite direction)
4. How much do you feel that you and your family have fun together?
5. How much do you feel that your family pays attention to you?

Table B.1 High College Expectations by Family Structure, Logistic Regression Odds Ratios and Standard Errors

Independent Variables	Respondents with a Resident Father						Respondents with a Resident Mother					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
Married Stepmother Family	**0.648** **	0.113	**0.616** ***	0.115	**0.568** ***	0.112	**0.648** **	0.113	**0.636** *	0.124	0.687 ^	0.142
"Other" Stepfamily	1.042	0.415	1.384	0.434	1.188	0.634	1.042	0.415	1.482	0.675	1.130	0.509
Single Parent Family	**0.597** ***	0.115	0.880	0.193	0.831	0.187	0.842 ^	0.085	1.037	0.169	1.049	0.173
Male			**0.532** ***	0.060	**0.512** ***	0.067			**0.555** ***	0.051	**0.531** ***	0.051
Age			0.930 ^	0.038	0.975	0.044			**0.904** ***	0.026	**0.918** ***	0.026
1st Generation Immigrant			0.965	0.283	0.898	0.284			1.195	0.263	1.193	0.256
2nd Generation Immigrant			1.014	0.226	0.997	0.255			0.953	0.164	0.964	0.166
Black			1.243	0.195	1.153	0.200			**1.131** **	0.140	**1.271** *	0.133
Hispanic			**0.621** *	0.145	0.717	0.182			**0.689** *	0.106	**0.671** ***	0.103
Asian			1.189	0.423	1.170	0.411			**2.053** *	0.735	**2.076** *	0.717
Number of Co-resident Siblings			1.022	0.054	1.004	0.058			0.995	0.036	0.985	0.037
Parents < H.S. Education			**0.639** *	0.148	0.706	0.185			**0.481** ***	0.057	**0.483** ***	0.057
Parents Have H.S. Education			**0.541** ***	0.070	**0.522** ***	0.072			**0.531** ***	0.052	**0.522** ***	0.052
Parents Education Missing			**0.510** *	0.149	0.563 ^	0.174			**0.368** ***	0.075	**0.373** ***	0.076
Family Income <= $15,999			**0.556** *	0.145	**0.529** *	0.163			**0.561** ***	0.098	**0.550** ***	0.098
Family Income $16,000-$34,999			**0.530** ***	0.108	**0.519** ***	0.108			**0.583** ***	0.085	**0.576** ***	0.088
Family Income $35,000-$59,999			**0.696** *	0.127	0.682 ^	0.140			**0.739** *	0.116	0.752 ^	0.120
Family Income Missing			1.006	0.233	0.946	0.239			0.823	0.145	0.793	0.145
Welfare Use			0.798	0.155	0.840	0.175			**0.626** ***	0.090	**0.627** ***	0.091
Welfare Use Missing			0.708	0.181	0.765	0.211			**0.642** *	0.130	**0.648** *	0.132
Resident Mother Employed Full-time			**1.352** *	0.194	**1.362** *	0.213			**1.271** ***	0.103	**1.257** ***	0.103
Proportion of Life in Current Family Structure			0.717	0.155	0.728	0.172			1.035	0.226	0.996	0.220
Proportion of Life in Current Residence			1.445 ^	0.318	1.414	0.324			1.248 ^	0.158	1.261 ^	0.164
Closeness with Resident Father					**1.211** ***	0.076						
Closeness with Resident Mother											**1.260** ***	0.086
Conflict with Resident Parent(s)											**0.834** *	0.073
2 Log Likelihood	-1517.5		-1413.4 ***		-1206.6 ***		-3176.7		-2923.4 ***		-2860.0 ***	
			N=2,041						N=4,604			

Table B.2 School-Related Behavior Problems by Family Structure, OLS Regression Coefficients and Standard Errors

Independent Variables	Respondents with a Resident Father					
	Model 1		Model 2		Model 3	
Married Stepmother Family	0.023	0.057	0.014	0.056	0.073	0.056
"Other" Stepfamily	0.081	0.211	0.109	0.234	0.118	0.235
Single Father Family	**0.127** *	0.063	0.116 ^	0.068	0.115	0.072
Male			0.064	0.043	**0.095** *	0.042
Age			-0.017	0.015	**-0.033** *	0.014
1st Generation Immigrant			**-0.488** ***	0.110	**-0.440** ***	0.110
2nd Generation Immigrant			**-0.201** *	0.089	**-0.176** *	0.086
Black			-0.046	0.067	-0.035	0.066
Hispanic			0.197 ^	0.106	0.185 ^	0.104
Asian			0.139	0.112	0.104	0.112
Number of Co-resident Siblings			-0.003	0.019	0.000	0.018
Parents < H.S. Education			-0.161 ^	0.090	**-0.186** *	0.086
Parents Have H.S. Education			**-0.125** *	0.055	**-0.116** *	0.051
Parents Education Missing			0.093	0.108	0.090	0.103
Family Income <= $15,999			-0.069	0.093	-0.074	0.097
Family Income $16,000-$34,999			0.029	0.079	0.041	0.075
Family Income $35,000-$59,999			0.041	0.064	0.026	0.062
Family Income Missing			0.031	0.100	0.022	0.096
Welfare Use			0.087	0.073	0.092	0.072
Welfare Use Missing			-0.061	0.098	-0.047	0.098
Resident Mother Employed Full-time			-0.089 ^	0.050	**-0.123** *	0.052
Proportion of Life in Current Family Structure			-0.021	0.069	-0.012	0.068
Proportion of Life in Current Residence			0.009	0.073	-0.006	0.072
Closeness with Resident Father					**-0.118** ***	0.025
Conflict with Resident Parent(s)					**0.151** ***	0.043
Parental Supervision					-0.046 ^	0.025
R-squared	0.005		0.045 ***		0.088 ***	

N=1,753

^p<0.10; *p<0.05; ** p<0.01; *** p<0.001