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**TRAJECTORIES OF CHILDREN'S LIVING ARRANGEMENTS
AND ADOLESCENT OUTCOMES**

A Dissertation in

Sociology and Demography

by

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ABSTRACT

While there has been much research on family structure and children's associated well-being in the last several decades, most studies have employed a static measure of family structure that only measures children's living arrangements at one point in time. Few studies have included measures of children's family structure over time, and none have taken children's entire family structure histories into account. This project documents the family living arrangements of a cohort of youth born between 1986 and 1992 from birth through adolescence using data from the National Longitudinal Survey of Youth. Factors that are predictive of experiencing various family structure trajectories and the associations between experiencing different trajectories and outcomes in adolescence are examined.

In the sample of 1,870 children, 187 distinct family structure trajectories were identified. On average, children experienced about 1 family structure transition in childhood. However, the mean number of transitions varied greatly depending on family structure at birth, which was also predictive of other future family structure experiences. Latent class analysis yielded five distinguishable trajectories of children's living arrangements over the course of childhood: continuously married biological parent families, long-term single mother families, married biological parents who break up, cohabiting biological parents who marry or break up, and a trajectory distinguished by the addition of a stepfather at some point during childhood. Mother's education, mother's family of origin characteristics, mother's race, and mother's experience of having a teen birth were predictive of the family structure trajectories their children experienced.

The trajectories characterized by parental divorce and growing up with a long-term single mother were generally associated with lower levels of well-being in adolescence. Family instability, measured by the number of family structure transitions children experienced, was also

associated with higher levels of depression and delinquency in adolescence independently of family structure trajectories. Other family structure variables, including the experience of various types of transitions as well as the percentage of childhood spent in certain family structures, were also predictive of later well-being. American children today have very diverse family structure experiences that predict later well-being in many different ways.

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Chapter 1

Introduction

In the past few decades, the family structures in which children grow up have changed dramatically in both their makeup and in the frequency of transitions between family structures. Many of today's children experience two or more family structures over the course of childhood. There is a substantial demographic and sociological literature describing the percentage of children who live in various family structures at a particular point in time and the percentage of children who experience certain family forms at some point during childhood. However, there is no study to date that examines the living arrangement trajectories of a nationally representative sample of children from birth to young adulthood. In addition, although there is much cross-sectional social science research about the family structures in which children live, we know little about the cumulative living arrangement experiences of children over the course of childhood or the effects of living in various family structure trajectories on offspring outcomes in young adulthood. The instability hypothesis suggests that children who experience multiple transitions may have lower levels of well-being than children who experience stable family living arrangements. Furthermore, the life course perspective suggests that experiences in childhood have important implications for well-being later in life and that transitions should be studied as part of trajectories. These two frameworks inform this study, in which I create and describe trajectories of children's living arrangements over the course of childhood and then analyze 1) factors which make children more likely to experience certain trajectories and 2) how growing up in particular trajectories may contribute to later outcomes.

There are two distinct research aims in this project. The first aim is to determine the trajectories of living arrangements that children experience from birth through adolescence. Latent class analysis will be used to create condensed family structure trajectories, which will be described in demographic context. Existing research often focuses on snapshots of children's living arrangements at one point in time.

The second research aim is to examine whether and how experiencing particular family structure trajectories influences various indicators of well-being in adolescence, including depression, delinquency, and mother-child closeness. The vast majority of extant research examines measures of child or young adult well-being after one transition, most commonly divorce. However, the compounded effects of multiple family structure transitions experienced as trajectories may have more important implications for well-being in early adulthood.

The broader impact of this project is to draw attention to a relatively neglected aspect of family research which may have important consequences for the well-being of children. This research is the first study to my knowledge to exhaustively document the family structure experiences of American children across the entirety of their childhood rather than at a single point in time and to investigate the ways in which experiencing certain living arrangement trajectories may affect well-being in young adulthood. Academics, policymakers, and practitioners will benefit from this knowledge and may be able to help effect positive changes in children's lives through policy and counseling.

Family Diversity

The family structures in which American children grow up have diversified considerably in the last few decades. In 1970, 85 percent of all children under age 18 lived with two married biological parents. By 1996, that percentage had decreased to 68 percent, and in 2004 remained

stable at about 68 percent (Child Trends Data Bank). Meanwhile, divorce, remarriage, nonmarital births, and cohabitation have become more common, and today's children experience a wide variety of family structures by the time they reach adulthood. For example, almost half of all children will live without their biological father at some point during childhood (Bianchi, 1990), many as a consequence of increased rates of divorce and nonmarital childbearing (Cherlin, 1992; Amato, 2000). Today, more than one third of all births are outside of marriage (Hamilton, Martin, & Ventura 2007). A further one third of those nonmarital births are within cohabiting unions (Bumpass and Lu, 2000; Osborne, 2005). About half of all marriages end in divorce, and half of divorces involve children (Amato, 2000). In addition, many American children experience some time in a married stepparent family (Coleman, Ganong, & Fine 2000).

Estimates of the percentage of all American children who will spend some time in a cohabiting family, a highly unstable family structure, range from about one-fourth (Bumpass and Lu, 2000) to two-fifths (Graefe & Lichter, 1999). Other nontraditional family structures are also becoming more common. For instance, single-father families and biological father-stepmother families are growing in number (Garasky & Meyer, 1996; Harris, Cavanagh & Elder, 2000; King, 2007).

While they provide useful descriptive information, the statistics concerning how many children experience particular family structures may be overlooking the fact that many of the same children may be experiencing a lot of these transitions over the course of their childhood, while other children continue to live in more traditional and stable households. This will be discussed in more detail later on. In the meantime, a brief discussion of the relationship between family structure and child-wellbeing is warranted.

Family Structure and Child Well-being

One of the primary reasons family research has focused on the increasing diversity of family forms is because of widespread concern about how growing up in different living arrangements may affect child outcomes (Amato, 2000; McLanahan & Sandefur, 1994). Scholars have long been interested in examining how family structure is related to child well-being. Much of the research in this area has focused on comparing how children in certain family structures are faring compared to their peers in other family structures. Common comparisons include divorced families versus intact married families, cohabiting families versus married families, single-parent families versus two-parent families, and stepfamilies versus biological parent families. For example, research shows that compared to married two-parent families (including parents and stepparents), single-parent families have lower incomes, a higher likelihood of being in poverty, and participate more frequently in government assistance programs (Acs & Nelson, 2003; Cherlin, 1992; McLanahan & Sandefur, 1994). In 2002, 15.1 percent of all children were living in poverty. However, only 7.9 of those children living with married parents were in poverty, compared with 37.6 of children in single-mother families who were poor (Acs & Nelson, 2003).

Experiencing different family structures can predict children's internalizing and externalizing problems long into adulthood. Amato and colleagues (Amato & Booth, 1991; Amato & Sobolewski, 2001) find that experiencing a divorced family can affect psychological well-being and parent-child relationships well into adulthood. Brown (2004) echoes other research that finds that family structures other than a two biological married parent family are negatively related to children's outcomes, but finds few differences between the other family structures. Manning and Lamb (2003), however, find differences between adolescents in

cohabiting stepfamilies and married stepfamilies and also report that adolescents in cohabiting stepfamilies are more likely than adolescents in unmarried single mother families to exhibit delinquency and have lower grade point averages. There is also some research looking at the well-being of children who live in nonparent households (King, Mitchell, & Hawkins, forthcoming; Hynes & Dunifon, 2007).

Clearly, there is an extensive body of literature linking current family structure status to many different indicators of child and adult wellbeing (e.g. Albrecht & Teachman, 2003; Amato, 2000; McLanahan & Sandefur, 1994; Seltzer, 1994; Teachman, 2003; 2004). The main conclusion from most of this research has been that living in a stable married two biological parent family is usually associated with better outcomes for children than living in other family structures (e.g. Chase-Lansdale, Cherlin, & Kiernan, 1995). Other family structures have been found to be associated with worse outcomes for children to varying degrees. However, the vast majority of existing research examines families at one point in time or changes after one family transition, most commonly divorce. There is comparatively little knowledge about the effects of multiple family structure transitions or family structure trajectories despite the recent increase in family instability. What researchers call the effect of family structure or divorce may actually be at least partially attributable to family instability. For example, children from married families may not be better off than children from single-parent or cohabiting families once instability is taken into account. Living in a stable family versus an unstable family, regardless of family structure, may be the real link between family “structure” and child outcomes. Furthermore, the particular trajectory children experience, including the type and timing of transitions, may be a key predictor of outcomes.

Family Instability

In most of the extant literature on changes in children's living arrangements, changes in family structure have been studied as single events. For example, a substantial literature examines how children's relationships with their parents are affected by individual family structure changes, especially divorce, or in a particular family structure (e.g. Amato & Booth, 1996; Amato & Booth, 1991; Aquilino, 1994; Cooney, 1994; Hetherington, Cox, & Cox, 1982; King, 1994; King & Sobolewski, 2006; White et al., 1986; Zill, Morrison, & Coiro, 1993).

While research focusing on individual family transitions, such as divorce, continues to be a focal point for family scholars, there is growing recognition that a single change in family structure is often one of several transitions for children. Hetherington (1993) writes that divorce and remarriage should not be considered to be single events but rather as part of a chain of marital transitions and family reorganizations. Other research also notes that divorce is often only the first of several subsequent transitions (Furstenberg & Cherlin, 1991; Buchanan, Maccoby, & Dornbusch, 1996). With each family transition, reworking of relationships and establishment of the new family system becomes necessary (Hetherington & Clingempeel 1992).

There is some evidence that even family structure at birth may be quite predictive of future instability. Cavanagh and Huston (2006) find that less than 20 percent of children born to biological married parents experience family instability in their first six years of life, compared to over half of the children born to single mothers and almost two-thirds of those born to cohabiting parents who go on to experience changes in family structure. In a different sample, Cavanagh et al. (2008) also find an association between family structure at birth and family instability. Similarly, Manning and Bulanda (2007) find that the number of transitions children experience over the course of childhood is correlated with their family structure at birth, with

children born into cohabiting households least likely to remain in stable families and not experience any transitions.

A major goal of current research on family instability is to achieve an accurate estimate of how many family structure transitions children experience. In a study using Add Health data, Brown (2006) reported that 7% of the total sample and 15% of the adolescents not residing in a two-biological-parent family at Time 1 experienced a living arrangement transition during a one-year interval between interviews at Time 1 and Time 2. Using Fragile Families data, Osborne and McLanahan (2007) found that between birth and age 3, young children, on average, experience just under one coresidential transition if their parents are cohabiting or single at birth, over one coresidential transition if their parents are visiting at birth, and only .14 of a transition, on average, if their parents are married at birth. Another study by Cavanagh and Huston (2006) determined that about one quarter of children experienced at least one family structure transition between birth and the start of elementary school using data from the NICHD Study of Early Child Care and Youth Development.

Fewer studies estimate family instability over a long proportion of the child's life, though some new research in this area does exist. Manning and Bulanda use the 1995 National Survey of Family Growth (NSFG) to examine family structure transitions and find that over one third of all children experience at least one family structure transition by age 14. Specifically, 16.4% of their sample experienced one transition and 19.0% experienced multiple transitions, compared to the 64.6% of the sample that experienced no transitions (Manning & Bulanda, 2007).

Cavanagh, Schiller, and Riegle-Crumb (2006) use Add Health data to estimate family structure transitions for adolescents between birth and Wave II of Add Health, when the average age of the sample is in the mid-teens. They find that 38% of the sample experienced at least one

family structure transition. About 18% experienced one transition, 14% experienced two transitions, 5% experienced three transitions, and 2% experienced four or more transitions.

Fomby and Cherlin (2007) looked at children aged 5-14 in 2000 using NLSY data and found that while, on average, children experienced .7 of a transition over the course of their lives, there was much variation in the number of transitions experienced. Fourteen percent of their sample had experienced a transition within the previous two years.

Family instability is clearly on the rise. An important question in the aforementioned and present research concerns children's outcomes and how and whether instability is related to overall well-being.

Family Instability and Child Well-Being

As yet the theoretical underpinnings about the effects of family instability on children are generally in agreement but are known by different names. Fomby and Cherlin (2007) refer to the longstanding yet understudied hypothesis that children who experience multiple transitions may fare worse developmentally as the *instability hypothesis*. Teachman (2003) offers an excellent description of two hypotheses that contribute to a *stability and change perspective*: stress and residential mobility. According to the stress hypothesis, changes in childhood living arrangements, such as parental marriage or divorce, cause psychological stress. The residential mobility hypothesis associates changes in family structure with changes in residence, which often causes obstacles for children. Wu and Martinson (1993) and Cavanagh and Huston (2006; 2008) refer to an *instability and change hypothesis* or *perspective*. Wu and Thomson (2001) discuss a "*family turbulence hypothesis*." By any name, theories about family instability all suggest cumulative effects of family structure changes.

With each change in family structure, children experience turbulence due to a variety of stressors. Some of these include changes in family income and changes in residence. However, research shows that even after controlling for these stressors, there seems to be a unique effect of experiencing transitions (Brown 2006), especially for White children (Fomby & Cherlin, 2007; Wu & Thomson, 2001). Each incidence of structuring and restructuring the family with the entrance or exit of a parental figure changes the atmosphere of the home in many ways. For example, new parental roles must be negotiated. A child must figure out what to call the new stepparent and the mother and stepparent must decide to what extent the stepparent is responsible for parenting and discipline. Emotional attachments may be strained or lost in the case of a union disruption. New stepparents may not bond easily with their partner's children (Amato, 1987). Resident mothers sometimes experience depression and increased stress as they try to juggle all of the changes (Amato, 2005). One paper states that "family instability describes a chronically chaotic and unpredictable family environment" (Ackerman, et al., 1999, p. 258). The instability hypothesis suggests that as instability increases, child outcomes will worsen.

The relatively small literature on family transitions focuses on marital transitions and often does not include transitions into and out of cohabitation in empirical studies (e.g. Wu & Thomson, 2001). Brown (2006) conducted one of the first studies to include transitions into and out of cohabitation using panel data from the National Longitudinal Study of Adolescent Health (Add Health). Since Brown's study, transitions into and out of cohabitation have been included in more studies (Fomby & Cherlin, 2007; Manning & Bulanda, 2007). Brown concluded that cohabitation with a stepparent appears to be a particularly problematic family form for adolescents and that specifying the type of transition is important for future research.

Interest in the processes and effects of cumulative family instability is a relatively recent development in family research. Though there is new recognition that family structure is a dynamic process rather than a static characteristic, family instability has thus far been examined in limited ways. A common strategy is to count the number of transitions children have experienced and analyze how the number of transitions affects outcomes. The effect of the number of family transitions on many outcomes has been documented in recent literature. Albrecht and Teachman (2003) studied how the number and type of family transitions ever experienced affect the risk of first premarital intercourse and find that experiencing more transitions increases the risk of premarital sex. However, the type of transitions experienced did not result in a better-fitting model than the number of transitions, suggesting that instability itself is most important for child wellbeing. In contrast, Brown (2006) finds that the specific type of transition is very important to take into account. Other research indicates that the number of family transitions is also associated with premarital birth and premarital cohabiting unions (Albrecht & Teachman, 2003; Wu & Martinson, 1993; Wu, 1996).

Multiple family structure changes have also been found to affect adolescent school performance in two recent studies using Add Health (Cavanagh, Schiller, & Riegle-Crumb, 2007; Heard, 2007). In addition, experiencing multiple transitions is associated with problem behavior among both young children (Cavanagh & Huston, 2006; Osborne & McLanahan, 2007) and adolescents (Brown, 2006). Osborne and McLanahan (2007) find that the association between family instability and problem behavior is completely mediated by more maternal stress and poorer mothering behaviors among very young children. Fomby and Cherlin (2007) also measure family instability as number of family transitions. In their study, they account for mother's behaviors and attributes to test the hypothesis that selection is responsible for the

association between family instability and outcomes in middle childhood, for which they find partial support. However, they also find that the number of family structure transitions experienced is significantly related to child well-being (for White children only).

Aquilino (1996) improves upon documenting the number of transitions by including the effects of sequence, timing, and number of transitions on young adult outcomes, but his analysis is limited to children born to unmarried mothers and so does not capture the full spectrum of family structure trajectories of American children. Aquilino's study finds that both the number and sequence of family structure transitions of children born to unmarried mothers affect young adult outcomes. Others have also made important advancements to the study of family instability by finding that instability seems to be directly related to outcomes. Wu (1996) tested whether the effects of family instability were an artifact of income changes and found that they were not. Fomby and Cherlin (2007) found that selection effects of mother's characteristics did account for part but not all of the effect of multiple transitions in family structure.

Interest in family instability reaches across disciplines: the psychological literature also recognizes the need to study instability as a dynamic phenomenon rather than only individual changes, as the overwhelming bulk of existing literature has done. Hetherington, Bridges, and Insabella (1998) note that individual family transitions like divorce are only one aspect of cumulative family instability that is likely to include parental marital transitions, moving, family income and parental occupational changes, and disruptions in routines. Ackerman et al. (1999), in turn, investigated how the number of various transitions such as residence changes, caregiver's relationship changes, and recent negative life changes affect young children's adjustment and find a significant and negative relationship between transitions and children's internalizing and externalizing problems. Capaldi and Patterson (1991) and Kurdek, Fine, and

Sinclair (1995) find the number of marital transitions to be linearly associated with child and adolescent psychological problems, respectively. Forman and Davis (2003) find an association between family instability and adolescent internalizing and externalizing problems. However, the psychological studies also tend to operationalize family instability by counting the number of transitions. My research identifying family structure trajectories will be of interest to family professionals across several disciplines.

Manning and Bulanda (2007) recently called for more studies that include complete family trajectories, especially because of the increasing incidence of cohabitation, which can often be missed in static measures. They point out that because cohabitation is often unstable (Manning et al., 2004; Raley & Wildsmith, 2004), it is likely to be underrepresented in studies looking at family structure at one point in time. Furthermore, even current research that includes cohabitation trajectories often fails to distinguish between biological and nonbiological cohabiting parents (e.g. Dunifon & Kowaleski-Jones, 2002; Hao & Xie, 2001). Using NSFG data, Manning and Bulanda find that using static variables of family structure at age 14 misses half of the experiences of living in cohabiting families, including two-thirds of experiences in cohabiting families with two biological parents and half of the experiences in cohabiting stepfamilies. Such static measures also miss two-fifths of experiences in single mother families, one-third of experiences in biological two parent married families, and one-fifth of experiences in married stepfamilies. Manning and Bulanda conclude that “full family histories are ideal and permit one to analyze timing of family change...as children increasingly experience new family forms and face greater instability, we must adjust our measurement and analytic strategies to keep pace,” (Manning & Bulanda, 2007, p. 218).

The present study improves upon past work in the area of family instability because in addition to counting family structure transitions, I am creating entire trajectories of children's living arrangements. Family structure trajectories, as opposed to individual transitions, offer more of a life course perspective as described by Elder (1994; 1998) because they capture the consequences of earlier changes for later outcomes and capture the full experience of individuals over time rather than looking at the effect of a single event or circumstance on another. Trajectories are made up of many individual transitions (Elder 1998) and yield a more comprehensive understanding of life experiences and causal relationships. Family structure trajectories are particularly important for study because they capture children's *cumulative* family structure experiences. Because children's living arrangements are so variable over time today, this cumulative experience is important to consider. Rather than only looking at timing or sequences of number of transitions children experience, constructing family structure trajectories provides an opportunity to combine these factors into one measure that is useful for descriptive and analytical purposes. Trajectories account for both current and past family structure experiences and may clarify any underlying patterns. Theory also suggests that family *instability* in addition to family *type* may be a very important connection between family structure and child outcomes. To my knowledge, no study looking at entire trajectories of family structure exists; indeed, Manning and Bulanda briefly discuss it as an option for analyses, but state that they do not use it because "the family categorizations may become unwieldy" (2007, p. 205). I use latent class analysis and other analysis tools in order to use the full trajectories in analyses.

It should also be noted that much research on instability includes transitions other than changes in family structure such as residence changes, negative life events, caregiver changes, parental job and income changes, or family deaths (e.g. Forman & Davies, 2003; Ackerman et

al., 1999). This project focuses specifically on family instability as measured by family structure changes. The development of such trajectories of childhood living arrangements advances the field of sociology because it is now possible to study the effects of cumulative family structure changes and indicate whether and how early trajectories may shape outcomes in adolescence.

Present Study

The present study draws on extant research on family structure and its relationship to child well-being as well as the emerging literature on dynamic family structure living arrangements and the association between instability and child outcomes. This research extends and improves upon prior research by including family structure trajectories that cover nearly the entirety of childhood for a specific cohort of children that is currently experiencing the transition to adulthood. This study attempts to provide as much descriptive information as possible about children's long-term experiences in families, including examining the degree to which family structure at birth predicts long-term living arrangements of children in greater depth and over a longer period of time than previous research, how many and what kind of transitions children of various backgrounds experience on average, and how many total trajectories of living arrangements exist. The study also highlights how growing up in various trajectories predicts outcomes in adolescence. Three main outcomes were included in the study: mother-child closeness, delinquency, and depression.

There is a rich literature dating back from Durkheim ([1896] 1951), Mead (1934), and Parsons and Bales (1995) about the role of parent-child relations in personality formation and well-being. Recent research finds that the effects of mother-child relations on children's well-being can last well into adulthood (Amato, 1994; Amato & Sobolewski, 2001). Closeness to mother was examined as an outcome in this study in order to determine whether family

instability was associated with lower mother-child relationship quality. However, other research has found that mother-child relationship quality is surprisingly stable for adolescents regardless of family instability (Stamps, Kamp Dush, & King, 2007), and divorce literature generally finds that custodial mother-child relationships are not greatly damaged by divorce (Peterson & Zill, 1986).

Both depression and delinquency are important indicators of adolescent adjustment. Depression and delinquency are both included in the study to account for the fact that, in general, girls exhibit higher rates of internalizing problems and boys exhibit higher rates of externalizing problems. Previous research has found that distress is more likely to manifest as depressive symptoms in girls than boys (Cicchetti & Toth, 1998; Hetherington & Clingempeel, 1992; Skaggs & Jodl, 1999), while boys are more likely than girls to exhibit externalizing behavior (Hetherington & Clingempeel, 1992; Loeber & Southamer-Loeber, 1998; Moffitt, 1993; Skaggs & Jodl, 1999). To orient this research in theory, I utilize the life course paradigm and a stress perspective as overarching theoretical frameworks.

Chapter 2

Theoretical Orientation: The Life Course Paradigm and Stress Perspective

Life Course Paradigm

The life course paradigm is a particularly appropriate framework for this research. According to Elder (1994), there are four central themes in the life course paradigm: the interplay of human lives and historical times, the timing of lives, linked or interdependent lives, and human agency in choice-making. Each of these principles informs this study of contemporary family instability and its implications for offspring outcomes.

The first tenet of the life course paradigm, that there is an important *interplay of human lives and historical time*, emphasizes how living in a particular era affects individual lives. In the context of the present research, this theme encourages us to take into account how children's lives are affected by growing up in the age of the second demographic transition in the United States (Lesthaeghe & Neidert, 2006; McLanahan, 2004). Children's living arrangements have not only diversified in the last several decades, but as a result of nonmarital childbearing and cohabitation in particular, instability has risen dramatically. This research examines a particular cohort of children that is coming of age in the new millennium, and special attention is paid to the diverse family living arrangements that comprise part of the historical context in which these children are growing up.

The life course paradigm's focus on the *timing of lives* is also applicable to the present research. Elder writes, "Social timing refers to the incidence, duration, and sequence of roles" (Elder, 1994, p. 6). The incidence, duration, and sequence of each particular family structure over the course of childhood is documented in this study. The implications of the incidence,

duration, and sequence of experiencing various living arrangements as part of a family structure trajectory for offspring well-being are also examined in detail.

The principle of *linked lives* is paramount to this research and generally; indeed, “no principle of life course study is more central than the notion of interdependent lives” (Elder, 1994, p. 6). In the present study, mother’s relationship trajectories determine children’s family structure trajectories. When mothers marry, divorce, enter or exit cohabitation, or experience a partner’s death, their children experience a corresponding entrance or exit of a parental figure into or out of their home. It is possible that the axiom, “Each generation is bound to fateful decision and events in the other’s life course,” (Elder, 1985, p. 40) is never truer than in the parent-child (and usually mother-child) relationship. Drawing on life course theory and Furstenberg et al. (1999), Cavanagh et al. (2006, p. 329) eloquently posit that “one of the most intuitive examples of this linked-lives principle is the parent-child relationship. Parents, through the choices and decisions they make for themselves and their children, influence how their children grow and develop over time.”

Relatedly, the concept of *human agency* states that individuals plan and make choices that determine their life course (Clausen, 1993). In this study, mothers plan and make choices about their relationships that determine both their family arrangements and those of their children. This research examines what those choices are in descriptive analyses of family trajectories and instability, under what constraints (such as mother’s race, education, and own family background) they are made, and what implications such choices have for offspring well-being.

There are other aspects of the emerging life course paradigm that guide this research project. First, the notion of trajectories is central to this study. This research focuses on the

long-term trajectories of children's family experiences and various family structure transitions along the way. When the life course is applied as a developmental theory, as in this study, transition experiences are used to study lives in motion (Elder, 1998). Additionally, transitions lead to other transitions, and transitions make up life trajectories (ibid). Here, I study whether and how experiencing certain transitions makes other transitions more likely. I also examine how various patterns of transitions make up different family structure trajectories. I use both transitions and trajectories to predict outcomes.

Clausen (1986) discusses two main methodological issues in life course research. First, although applying a life course perspective to family studies encourages using a longitudinal lens in research, retrospective data is often unreliable. Second, it is difficult to separate age effects from cohort effects. This study takes both of these concerns into account and improves upon other studies that struggle with these issues. First, the data used is, for the most part, not retrospective. Longitudinal data collected roughly every two years is used in order to obtain the most accurate information about family structures across time. Second, the cohort is held constant by including only one cohort of adolescents aged 14-19 in 2006. Therefore, all effects found will be generalizable to this particular contemporary cohort.

Of course, a life course perspective suggests that children's experiences in childhood are likely to play a large role in determining well-being in adolescence and adulthood. In this study, family trajectories are valuable not only as descriptors of children's living arrangements over childhood but also as measures of instability and predictors of outcomes. Some trajectories that will emerge are sure to be stable family forms, such as a married two-parent household in which no transitions have occurred. Others may include three or more transitions which may include marriages or cohabitations or both. I expect that there will be differences in the outcomes

associated with the trajectories that emerge, and most evidence supports the idea that the specific mechanism linking the trajectories and young adult outcomes is stress associated with instability.

The appropriateness of one of the analytic strategies used in this research is worth mentioning. One problem with life course research, as discussed by Rindfuss, Swicegood, and Rosenfeld (1987), is the fact that there is tremendous heterogeneity in people's life courses. In their study of the transition to adulthood, Rindfuss et al. discovered a huge amount of variation that was not "orderly" and not consistent with a "normal" pattern. However, they conclude: "We hope that this paper does not stimulate more research on the determinants of first birth, first marriage, or educational attainment, but, rather, encourages a more careful look at the life course *as it is actually lived*, not as we wish it to be for the sake of research" [emphasis theirs] (Rindfuss et al. 1987, p. 799). In this research, I attempt to heed their call to look at children's life trajectories as they are actually lived. In order to help me deal with the inevitable heterogeneity, I use latent class analysis to construct trajectories of common experience.

In fact, Macmillan and Copher (2005, p. 864) specifically and strongly advocate using latent class analysis as a way to "identify the underlying structure of social roles" within a life course perspective. They demonstrate the use of the LCA method to understand variation in the transition to adulthood. Recent studies have applied latent class analysis techniques to understanding pathways in emerging adulthood (Amato, Landale, Havasevich-Brooks, Booth, Eggebeen, Schoen, & McHale, 2008; Ross, Schoon, Martin, & Sacker, 2009) and patterns of nonresident father involvement (Cheadle, Amato, & King, forthcoming). To my knowledge, this method has not yet been applied to the study of children's trajectories of living arrangements.

Stress Perspective

The stress perspective is a theoretical framework that suggests that psychological or emotional stress is the mechanism that links various transitions to poor outcomes. Selye (1956, 1975) suggests that stress is the body's non-specific response to demands made upon it. A more specific formal definition of stress is given by Cox (1978): stress occurs when there is an imbalance between demands on an individual and the perceived capabilities of the individual to cope with the demand. More specifically, stress leads to both psychological and physiological responses (Cox 1978).

Change of any kind, whether positive or negative, places demands on people that can create stress. In the case of changes in family structure, children experience stress associated with how they must adapt to their new family. A series of changes is likely to cause more stress than a single change as demands to adapt increase.

Researchers studying a single family structure transition, such as divorce (Amato, 2000; Amato & Keith, 1991; Booth & Amato, 2001; Cherlin et al., 1991; Edwards, 1987; Furstenberg & Cherlin, 1991; Glenn & Kramer, 1985; Hetherington, Camara, & Featherman, 1983; Peterson & Zill, 1986; Teachman, 1999; Wallerstein & Blakeslee, 1989) or remarriage (Cherlin, 1978; Furstenberg, 1987; Ihinger-Tallman & Pasley, 1987), find that those transitions are associated with both short- and long-term negative psychological outcomes for children.

As discussed in Chapter 1, theories about stress and cumulative family instability are referenced by different nomenclature, but they all suggest cumulative effects of family structure changes on outcomes. In testing three different hypotheses about why instability leads to poorer outcomes, Aquilino (1996) finds the most support for the stress perspective, which states that experiencing multiple transitions leads to increased stress for children, which in turn negatively

affects their outcomes. He found less support for the socialization perspective and family socioeconomic status explanation. Teachman (2003) describes and finds evidence for a similar stress hypothesis. Several studies find a connection between multiple transitions in children's lives and stress, which is associated with earlier sex and earlier premarital births (Albrecht & Teachman, 2003; Teachman, 2003; Wu, 1996).

Changes in family structure are stressful for children because they must rework their relationships and learn to function within a new family system with each transition (Hetherington & Clingempeel, 1992). When children experience many transitions, they must readjust their lives many times. Readjustment may include dealing with the loss of a loved family member or the introduction of a new and possibly unfamiliar person into the family (Amato, 1987; Amato, 2005; Amato & Booth, 1991; 1996; Scott, Booth, King, & Johnson, 2007), a loss or gain of income (Gottschalk & Danziger, 1993; Hao, 1996), residential mobility (Speare & Goldscheider, 1987), often into a poorer neighborhood in the case of marital dissolution (South, 1999), and many other factors which may lead to psychological stress, possibly well into adulthood (Amato & Sobolewski, 2001; Cherlin et al., 1998), which in turn may affect outcomes.

The creation of trajectories of long-term living arrangements will take into account children's living arrangements across all of childhood, and it is likely that some trajectories will be more detrimental to children's well-being than others. The stress and adjustment associated with experiencing some types of transitions and trajectories may be more harmful than other types, even when children experience the same number of transitions. For example, adjusting to living with a cohabiting stepparent versus a married stepparent may be associated with lower offspring outcomes (Brown, 2001; Buchanan, Maccoby & Dornbusch, 1996; Manning & Lamb, 2003; Morrison, 2000; White & Gilbreth, 2001), possibly because cohabiting stepfathers have

more ambiguous roles in childrearing compared to married stepfathers (Hofferth & Anderson, 2003). Theory suggests that psychological stress is the mechanism linking family structure changes and outcomes.

In this analysis, I do not have an ideal measure of stress, but I use years spent in poverty across childhood as a proxy for stress that is likely to be associated with changes in family structure. Some family structure trajectories will likely make children more likely to experience more years in poverty, while others will nearly ensure that they do not spend very much time, if any, in a household with a family income below the poverty level. Manning and Lichter (1996) used Census data to determine poverty experience associated with different family formation experiences and found that living in poverty was strongly associated with family structure. For example, only 9% of children in married-couple families were living in poverty, compared to 31% of children in cohabiting-couple families (adjusted for partner's income, or 44% unadjusted for partner's income) and 45% percent of children in single-mother families.

This measure of long-term poverty experiences is only a rough proxy for stress associated with long-term family structure experiences. Economic stress is only one type of stress that may accompany experiencing certain family structures. Other types of stress include the negative implications of residential changes and increased maternal stress associated with transitions. Furthermore, some family structure changes, such as the addition of a partner to the household, may relieve economic stress (but potentially introduce stress associated with adjusting to a new member of the household). Other family structures, such as a long-term single mother household, may have a higher likelihood of experiencing poverty, on average, but be less stressful because of their stability. Regardless of whether I am able to capture economic stress associated with family structures over time using time spent in poverty, previous research

suggests that if strong associations between family trajectories and/or family transitions with adolescent outcomes are found to exist, various forms of stress, economic and otherwise, are likely to be the mechanisms behind the association.

Overview of Research Questions and Hypotheses

This project is poised to answer several important questions about the lives of American children. There are two groups of questions. The first group of questions is descriptive in nature, and attempts to improve current documentation of children's family lives. The second group of research questions uses a life course framework to ask how growing up in particular family structure trajectories may affect young adult outcomes.

The first of the descriptive research questions is (1) on average, how many changes in family structure do American children experience from birth through adolescence? (2) What percentage of children experiences a parental marriage? A parental cohabitation? A parental divorce? A parental cohabitation dissolution? A parental death? Some previous research has not included cohabitation in measures of family instability, but Raley and Wildsmith (2004) clearly show that entrance into and exit from cohabitation must be included in measures of family instability or many transitions into and out of various family structures will be missed. I will also answer the question (3) how many different trajectories of living arrangements exist, and what are the most common ones? Trajectories are pathways of common experience, and determining the major trajectories of living arrangements children experience over the span of their entire childhood will be a major contribution to the literature. Also, (4) what primary trajectories does latent class analysis reveal? Finally, (5) what factors (mother's own family structure, mother's race, and mother's education, for example) are associated with experiencing

various trajectories, and how do children in different trajectories differ on demographic characteristics?

The second set of questions deals with the effects of growing up in various trajectories.

(6) How does experiencing different trajectories growing up affect outcomes in adolescence?

How do living arrangements over the course of childhood predict depression? Delinquency?

Mother-child relationship quality? (7) And (how) do other measures of family structure,

including traditional measures such as family structure at age 14 as well as total number of

transitions experienced, ever experiencing particular types of transitions, percentage of childhood

spent in different family structures, and number of mother's partners who have lived in the home

predict outcomes? Putting all of these different measures together, (8) what matters overall for

child well-being?

I hypothesize that the latent class analysis will reveal several different groupings of living arrangements over childhood, and that the presence or absence of transitions and the types of

transitions will be a main factor distinguishing the trajectories. There may be some differences

by race, mother's education, and other background variables. Research shows that minority

children, with the exception of Asians, are generally more likely to be born to unmarried mothers

than White children (Bianchi & Casper, 2000), which in turn is associated with higher levels of

family instability for Black children (Raley & Wildsmith, 2004). In addition, children with less educated mothers are more likely to spend some time with a single mother (McLanahan, 2004).

Based on the stress perspective, I hypothesize that young adults who grew up in more stable

homes, regardless of family structure, will do better on measures of well-being than those who

grew up in highly unstable households. I also hypothesize that the types of transitions that

children in different trajectories experience will affect outcomes. Specifically, research on

divorce suggests that it is a problematic transition for offspring well into adulthood (Amato, 2000; Amato & Sobolewski, 2001).

Chapter 3

Sample, Method, and Variables

Data and Sample

The data sets used for the study were the National Longitudinal Survey of Youth 1979 (NLSY79) and the linked NLSY79 Children and Young Adults (CNLSY). The research questions in this study can best be answered using panel data that includes questions about family structure at several points in time over the course of children's lives and into young adulthood and for whom extensive household information is available over time. The CNLSY is a data set that surveys the biological children of women in the NLSY79. Information on the CNLSY sample has been collected every two years from 1986 to 2006. The CNLSY is representative of children born to the women of the NLSY79, which in turn is representative of Americans who were 14 to 21 years of age on December 31, 1978 when appropriate sample weights are used. Family structure history came from the mothers' NLSY79 surveys; the other data came principally from the linked Child and Young Adult surveys.

The NLSY data is sponsored by the U.S. Department of Labor and the data has been compiled through the Ohio State University Center for Human Resource Research. The original NLSY79 data included a nationally representative sample of 12,686 men and women. As of the 2006 wave, the NLSY79 women were between the ages of 41 and 49. The CNLSY sample is estimated to represent over 90 percent of all the children ever to be born to this cohort of women. By 2004, there were 8,267 children identified in the NLSY data as having been born to the original NLSY79 female respondents, including a small number who were born prior to the original 1979 survey. There were 7,816 children and young adults who were interviewed in 2006. Of the sample of 7,816 respondents, 1,972 were under age 15 and 5,844 were classified as

young adults in their interviews (the CNLSY adjusts the questionnaire based on the age of the child).

NLSY data is suited to this study because it offers extensive household information over several waves of data and the NLSY administrators present the data as nationally representative of the children of a cohort of American women at the end of their childbearing years. The CNLSY also includes many important young adult outcomes, including internalizing and externalizing problems, childbearing, and mother-child relationships.

The sample selected for the study is a cohort of children who were 14-19 years old in 2006. Selecting adolescents in this narrow age range insures that all of the respondents are in the same cohort. Adolescents in the sample were born between late 1986 and 1992. However, it must be noted that because there is a range of ages in the sample, some adolescents had several additional years of risk for experiencing more family transitions, and transitions did occur in less than 4% of the sample at each additional age above age 14 (15-19). Those selected for the sample must have lived with their biological mothers continuously throughout childhood because the family structure information comes from mothers' interviews. These children represent the cohort born in their mothers' late twenties. Limiting the sample to this age group allows more complete cohabitation information to be used, as information on cohabitation was not collected in the early years of the NLSY study. The mothers in the sample must have missed no more than two surveys during their child's lifetime in order to ensure that complete family structure histories were obtained. After applying those restrictions, the sample size was 1,927 children. In 57 cases, as family structure histories were being created, there was conflicting data reported by the mother about what transitions had occurred and when they had occurred, and it was not possible to reconcile the various reports about what had really happened, so the cases were

dropped. The final sample size was 1,870 adolescents. Sampling weights are not used in the analyses in this project due to their disputed usefulness (Winship & Radbill, 1994).

Measures

Family Structure Variables

Children were coded into one of six possible family structures at birth: mother married to biological father, mother cohabiting with biological father, mother was married to and is now separated from biological father, mother married to a non-biological stepfather, mother cohabiting with non-biological partner (hereafter referred to as a cohabiting stepfather), or single (mother may or may not have had previous spouses or partners, is not separated from biological father, and currently does not report any spouses or partners in the household). Then the date and type of each relationship transition after the child's birth through 2006 were coded. Both the type of transition and the type of partner (biological or non-biological father) were recorded in the transition codes. There were 16 possible transitions: marriage to biological father, separation from biological father, reunite with biological father after a married separation, divorce from biological father, marriage to biological father ended due to father's death, marriage to stepfather, separation from stepfather, reunite with stepfather after a married separation, divorce from stepfather, marriage to stepfather ended due to father's death, begin cohabiting with biological father, end cohabitation with biological father, cohabitation with biological father ended due to father's death, begin cohabiting with stepfather, end cohabitation with stepfather, and cohabitation with stepfather ended due to stepfather's death.

In some cases, a transition was reported but the exact date of the transition was not reported (most commonly the end of cohabitation). When other indicators confirmed the interval of time in which the transition must have occurred, the ending date was estimated to be six

months after the last survey in which the relationship was reported. If a start date of a relationship (nearly always cohabitation) was missing, the start date was imputed to be one month before the survey in which the relationship was first reported. By using this method, cohabiting relationships were still included even if a date was missing as long as it could be reasonably estimated.

The possible codes for family structure at birth and each subsequent transition as well as the frequency of each of these family structures at birth and the frequency of ever experiencing each subsequent transition at least once can be found in Table 1.

When looking at Table 1, it is important to keep in mind that some members of the sample experienced the same transition multiple times, and that is not reflected in this table, which only records how many children *ever* experienced each of these transitions. About three-quarters of the sample were born to two married parents, and the remaining quarter were born into other family structures. The most common alternative was being born to a single mother (about 15% of the sample), followed by cohabiting biological parents (8.3% of the sample) and separated biological parents (just over 1%). None of the children in the sample were born to a mother married to a stepfather, and just one was born to a biological mother who was cohabiting with a nonbiological father.

As expected, the transition that the largest percentage of the sample ever experienced was the divorce of previously married biological parents (about 22% of the sample). About 17% percent of the sample ever experienced the separation of their married biological parents which was explicitly reported by the mother. Obviously, all of the parents who ever divorced also separated, but a separation was only explicitly counted when the mother reported that her spouse

was no longer living with her. Some mothers reported a separation but no subsequent divorce or a reunification with their spouse.

Table 1. *Frequency and percentage of adolescents ever experiencing each birth status and subsequent family transitions (unweighted).*

	Frequency	Percent of Sample Ever Experienced
<i>Family Structure at Birth</i>		
Married biological parents	1411	75.5%
Cohabiting biological parents	156	8.3%
Separated biological parents	22	1.2%
Biological mother married to stepfather	0	0%
Biological mother cohabiting with stepfather	1	.1%
Single mother	280	15.0%
<i>Possible subsequent family transitions</i>		
Biological father marital transitions		
Biological parents marry	114	6.1%
Biological parents separate	319	17.1%
Biological parents divorce	409	21.9%
Married biological father dies	31	1.7%
Separated biological parents reunite	40	2.1%
Biological father cohabiting transitions		
Mother begins cohabiting with father	54	2.9%
Mother ends cohabitation with father	88	4.7%
Cohabiting father dies	2	.1%
Non-biological father marital transitions		
Mother marries stepfather	286	15.3%
Mother separates from stepfather	66	3.5%
Mother divorces stepfather	76	4.1%
Married stepfather dies	4	.2%
Mother reunites with separated stepfather	12	.6%
Non-biological father cohabiting transitions		
Mother begins cohabiting with stepfather	300	16.0%
Mother ends cohabitation with stepfather	120	6.4%
Cohabiting stepfather dies	0	0%

About 16% of the sample ever experienced their mother's cohabitation with a stepfather, and about 15% ever experienced their mother's marriage to a stepfather. About 6% of the sample experienced their mother breaking up with their cohabiting stepfather at least once; the other cohabiting relationships either continued or resulted in marriage, which is not included in

the cohabitation breakup statistic. About 4% of the sample ever experienced their mother and stepfather's divorce. A relatively small number ever experienced a father figure's death during childhood. The greatest likelihood of experiencing a paternal death was for children to experience the death of their married biological father (just under 2% of the sample). Other less common transitions can be found in Table 1.

After the complete relationship histories were coded, several family structure variables were created. Variables representing relationship structures over time were calculated for the latent class analysis. Examples of the dataset used in the LCA are shown in Table 2.

Table 2. *Example data set for latent class analysis: first three years only (actual data set continues through ages 14-19).*

I D	MB	MB	MB	CB	CB	CB	CS	CS	CS	MS	MS	MS	Sing	Sing	Sing
	Birth	Age 1	Age 2	Birth	Age 1	Age 2	Birth	Age 1	Age 2	Birth	Age 1	Age 2	Birth	Age 1	Age 2
1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1
3	1	1	0	0	0	0	0	1	1	0	0	1	0	1	0
4	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1
6	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0

Note: MB = married to biological father; CB = cohabiting with biological father; CS = cohabiting with stepfather, MS = married to stepfather; Sing = single (no partner).

For each age between birth and child's age in 2006, a dichotomous variable (1,0) indicating whether the child experienced each family structure was created. There were 5 statuses a child could possibly occupy for each year of age. Including the year of birth, there are 99 separate variables for each respondent (no one in the sample was born to a mother who was married to a stepfather at the time of birth, so this variable was omitted from the analysis). Table 2 is a fictional dataset representing the structure of the data used for the latent class analysis in *Mplus*. Five binary variables were used to represent family structure: mother married to biological father, mother cohabiting with biological father, mother cohabiting with stepfather,

mother married to stepfather, and single mother (no partner reported in the household). The latent class analysis is based on who the mother is living with at each age. Therefore, the latent class analysis does not distinguish between separation and divorce; what counts is who is in the household. Each child was coded 1 or 0 for each of these five variables for every year of their life beginning from birth (the table above only continues through age 2 in the interest of space conservation). In years in which a transition occurred, the child was coded 1 for each variable experienced that year.

For example, in the table above, Child ID 1 is born to a mother who is married to the child's biological father at the time of the birth and remains in the same relationship. Thus, the child is coded 1 for "married to biological father" at birth, age 1, and age 2 and 0 for all other family structure at all other ages. Child ID 2 is also born to a mother who is married to the child's biological father at the time of the birth. However, this Child ID 2's mother becomes single when the child is 2 years old. Thus, age 2 is a transition year. Child ID 2 is coded 1 for "married to biological father" at birth and age 1 and 0 for all other variables at birth and age 1. At age 2, the child is coded 1 on "married to biological father" and "single" to represent the transition.

Child ID 3 experiences a more complex trajectory. This child is also born to a mother who is married to the child's biological father at the time of the birth. At the child's age 1, the father moves out, and later in the same year the mother also begins a cohabitation with a stepfather to the child. Therefore, at age 1, Child ID 3 is coded 1 for "married to biological father," 1 for "single mother," and 1 for "cohabiting with stepfather" and 0 "cohabiting with biological father" and "married to stepfather." When Child ID 3 is 2 years old, the mother marries the cohabiting stepfather. In that year, Child ID is coded 1 for both "cohabiting with

stepfather” and “married to stepfather” and 0 for other family structures. Child ID 4 is born to cohabiting biological parents who do not break up or marry. Child ID 5 is born to a single mother who begins cohabiting with a stepfather when the child is 2 years old. Child ID 6’s mother is continuously single. Child ID 7 is born to a single mother who begins cohabiting with the child’s biological father when the child is a year old.

Other created family history variables included a variable representing the total number of family structure transitions that the child had experienced from birth until the survey in 2006, at which time the children were 14-19 years old. The total number of transitions increased by one with each transition from one family structure to another. The 16 possible transitions are shown in Table 1. This variable is the maximum measure of family structure transitions.

A more traditional measure of family structure transitions was calculated in the same way as the maximum measure, except two transitions were not counted: cohabitations that transitioned directly into marriages, and separations that transitioned directly into divorces.

Family structure at age 14 was a set of dummy variables (1= *yes*, 0 = *no*) indicating whether the child was living with married biological parents, cohabiting biological parents, mother with cohabiting stepfather, mother with married stepfather or a single mother. Those who experienced a family structure transition at age 14 (n=82) were not included in the analysis using family structure at age 14 in order to ensure that the categories were mutually exclusive.

In addition to number of family structure transitions, the total number of union formations (spouse or partner moving into the household) and union dissolutions (spouse or partner moving out of the household) the child experienced were calculated. The direct transitions from cohabitation to marriage were not counted in the number of union formations because no new partner moved in. Likewise, either separation *or* divorce was counted,

depending on whether the mother reported a separation before a divorce or ever divorced after separation, but transitions from separation directly to divorce were not counted in the number of union dissolutions.

Another set of variables tapping long-term family structure were five variables representing whether the child ever experienced particular family structure transitions (1= *yes*, 0 = *no*). These included ever experiencing mother's marriage (wedding, the start of a marriage), ever experiencing the beginning of a mother's cohabitation, ever experiencing mother's divorce, ever experiencing mother's cohabitation dissolution (cohabiting partner moving out), and ever experiencing the death of mother's partner (husband or cohabiting partner).

The percentage of childhood that the respondents spent in three types of family structures was calculated for this study. Child's time in century months in a single parent home, married parent home, and cohabiting parent home from birth until 2006 survey was calculated and then divided by child's age. In these variables, the relationship of the married or cohabiting partner to the child (biological father or stepfather) was not taken into account.

The total number of each mother's coresidential partners was used as a variable in the study. Three variables were calculated: total number of mother's marriage partners, total number of mother's cohabiting partners, and total number of mother's marriage and cohabiting partners (if the same partner cohabited with and was married to the mother, they were only counted once in the last measure).

Child Outcomes

All child outcomes were calculated according to adolescents' responses to questions in the CNLSY. Outcomes in the study included closeness to mother, depression, and delinquency. These variables were selected because they are important indicators of adolescent well-being and

adjustment. Missing values were not imputed on these dependent variables in the regression-based analyses.

Closeness to mother was coded according to responses to a question asked of the adolescents ages 15-19 in 2006: “*How close do you feel to your mother? Would you say...*” Responses ranged from 1 = *extremely close* to 4 = *not very close*. These responses were reverse coded so that higher values indicated higher levels of closeness on a scale of 1 to 4.

Depression was measured among adolescents ages 15-19 in 2006 using the abbreviated Center for Epidemiologic Studies Depression Scale (CES-D) developed by the Center for Epidemiological Studies of the National Institute of Mental Health (Radloff, 1977). Respondents reported how often they had not felt like eating, had trouble keeping mind on things, felt depressed, felt everything was an effort, had restless sleep, felt sad, or could not get going during the past week (0 = *rarely or none of the time, 1 day*; 1 = *some or a little of the time, 1-2 days*; 2 = *occasionally, moderate amount of the time, 3-4 days*, 3 = *most or all of the time, 5-7 days*). The measure of depression used in these analyses was the mean of the responses for the 7 items for each adolescent (seven items, reliability $\alpha = .65$). In analyses predicting mother-child closeness and depression, most of the youngest adolescents in the sample are excluded because they were not asked the questions because they were not yet 15 years old.

Delinquency was measured among adolescents who were 14-17 years old in 2006 using the Self-Reported Delinquency (SRD) interview (Elliott & Huizinga, 1983). As the standard measure in current delinquency research, the SRD is both reliable and valid (Loeber et al., 1998; Moffitt, 1990; Moffitt et al., 1996; Lahey et al., 2008). The SRD is a 7-item scale made up of the following questions: *hurt someone bad enough to need bandages or a doctor*; *lied to parent about something important*; *took something from a store without paying for it*; *intentionally*

damaged or destroyed property that didn't belong to you; had to bring your parent(s) to school because of something you did wrong; skipped a day of school without permission; and staying out overnight without permission. The SRD was administered to both the children ages 10-14 and young adults ages "older 14" to 17 in the CNLSY. For the young adults aged older 14 to 17, the item *staying out overnight without permission* was replaced by *running away from home overnight*. In the present study, the child and young adult items in the SRD were coded dichotomously from the original 4-level responses ranging from *never* to *more than twice* and combined, and a delinquency scale was computed from the mean of the items (seven items, reliability $\alpha = .63$). Because of the age range to which the SRD was administered, this outcome could only be analyzed for adolescents aged 14-17 (18 and 19 year olds were excluded).

Independent Variables

Child Characteristics. Some standard child characteristics that are associated with child outcomes, including gender and age, are included in the study. Several adolescent outcomes, including internalizing and externalizing problems (Skaggs & Jodl, 1999) and mother-child closeness (Mitchell, Booth, & King, forthcoming) vary by adolescent gender. Adolescent age is also associated with greater maturity and lower levels of some problem behaviors, but higher levels of others, such as delinquency and risky behaviors (Kann et al., 2000). These variables all come from child's report in the CNLSY. Male is measured as 1 = *male*, 0 = *female*. Age is a continuous variable ranging from 14-19.

Mother Characteristics. This study includes characteristics of the mother that measure some of her background characteristics, her family of origin, and basic attitudes in her youth that are likely to be associated with her relationship trajectories during her children's lives as well her

children's outcomes. These questions were asked before the focal child was born. All of these questions come from the mother's direct responses to the NLSY79 questions.

Mother's family structure at age 14 is coded according to whether she was living in an intact family with both of her parents when she was 14 years old (0=*mother and father in household*, 1 = *other family structure*). Previous literature and family theory suggests that aspects of family structure are likely to be transmitted across generations (Axinn & Thornton, 1996; Thornton, 1991; Teachman, 2004). The most commonly cited example is divorce: experiencing parental divorce increases offspring risk of divorce for a variety of reasons (Amato, 1996). Likewise, economic circumstances are likely to persist across generations, and the socioeconomic circumstances of one's family of origin often predict family formation choices as well (Edin & Kefalas, 2005). Family poverty status is calculated for 1979, the first year of the survey (1 = *in poverty*, 0 = *not in poverty*). Mother's parents' education was also included. Mother's mother's (child of interest's grandmother's) highest grade completed was coded into a set of dichotomous variables: less than high school, high school completed, education beyond high school. Mother's father's (child of interest's grandfather's) highest grade completed was also coded into the same set of dichotomous variables: less than high school, high school completed, and education beyond high school. Mother's race is coded as a set of dichotomous variables: Black, Hispanic, and non-Black non-Hispanic.

Religiosity has been found to be associated with family formation choices, including actions regarding a premarital birth (Plotnick, 1992) and likelihood of cohabitation versus marriage (Thornton, Axinn, & Hill, 1992). In this study, mother's religiosity in young adulthood is coded from a question in 1979 asking the respondent what their present religion is (a separate question asks in what religion was the respondent raised and is not used in this study). A

dichotomous variable was created from this question (1 = *respondent named a religion*, 0 = *none, no religion*). Attitudes toward marriage have also been found to be predictive of family structure choices (Clarkberg, Stolzenberg, & Waite, 1995). Mother's expectation of marriage is coded from a question asked in 1979 regarding the age at which the respondent expects to marry (1 = *already married or answers with an age range*, 0 = *never*).

Mother's self-esteem in young adulthood may be associated with the type and stability of her future romantic relationships as well as her children's well-being. Specifically, having lower self-esteem lowers the chances that women will marry (Kim & McKenry, 2002). Following Fomby and Cherlin (2007), I use the Rosenberg Self-Esteem Scale administered in 1980 to tap mother's self-esteem in young adulthood. In the Rosenberg scale, respondents indicate the degree (1-4) to which they agree with statements such as, "I am a person of worth," "I am inclined to think I am a failure," and, "Sometimes I think I am 'no good' at all." Mother's self-esteem is the mean of the 10 questions in the Rosenberg scale, some of which are reverse-coded, so that a higher score always indicates higher self-esteem on a scale of 1 to 4 (ten items, reliability $\alpha = .83$).

Mother's education in 1985 was coded into the same set of dichotomous variables as grandparents' educational attainment: less than high school, completed high school, or education beyond high school. The oldest adolescents in the sample were born in 1986, so this measure of mother's education predates the birth of the child yet all mothers are over 20 years old by this time.

Mother's age at first birth is coded as a dummy variable according to whether the mother was less than 20 years old at the time of her first birth. As Fomby and Cherlin (2007) discuss, having a teen birth has been associated with long-term disadvantage in terms of future economic

circumstances and lower chances of marriage, resulting from both causal effects and family background (Geronimus & Korenman, 1992; Geronimus, Korenman, and Hillemeier, 1994; Hayes, 1987; Hoffman, 1998; Hoffman, Foster, & Furstenberg, 1993).

Another independent variable that comes from the mother's survey is the percentage of the focal adolescent's childhood that was spent in poverty. This variable was calculated by adding the years spent in poverty over the course of the child's life as reported by the mother divided by the child's age in 2006 multiplied by 100 to obtain the percentage of childhood spent in poverty. It serves as a rough measure of financial stress that may connect children's family structure histories with their adolescent outcomes.

Analytic Strategy

The goal of this project was to analyze children's complete family structure histories. There were two main steps of the analytic strategy corresponding to the two specific aims and groups of research questions.

The first aim was to document children's long-term family histories. Therefore, the first step of the analytic strategy involved general descriptive analyses of children's family structure experiences over the course of childhood. This included the creation of trajectories of living arrangements over childhood and the use of latent class analysis (LCA) in *Mplus* to determine the major groupings of such trajectories in the sample. Latent class analysis captures underlying patterns due to an unidentified latent variable, in this case of children's living arrangements over the course of childhood. LCA is particularly appropriate to describe the family structure experiences of American children over time, yet has not been applied for this purpose in extant research. McCutcheon (1987) states that latent class analysis is appropriate when people belong to different groups but how people fall into those groups is not known *a priori* and should be

decided according to the data. Analysis of the demographic characteristics of children who grow up in different trajectories was conducted using crosstabulations and multinomial logistic regressions. Expectation maximization algorithms were used to deal with missing data in regression-based analyses. Five percent or fewer of the cases were missing on the imputed variables with the exception of time spent in poverty (8% of cases were missing) and grandfather's education (13% missing).

The second aim of the study was to determine whether living in different family structure trajectories is associated with various adolescent outcomes, including depression, delinquency, and mother-child relationship quality, using regression-based methods. First, the effects of growing up in the different family structure trajectories identified by the latent class analysis as well as the effect of the number of family structure transitions experienced during childhood are analyzed. Next, a variety of other measures of long-term family structure are examined, including family structure at age 14, ever experiencing certain family structure transitions, percentage of childhood spent in various family structures, and number of mother's partners who lived in the home during childhood.

Chapter 4

**Results: An Examination of Family Structure over Time in a Cohort of
American Children**

Table 3 presents the descriptive characteristics of the main sample of 1,870 adolescents used in these analyses.

Table 3. *Descriptive Characteristics of Sample (unweighted)*

	<i>% or M (SE)</i>
<i>Child characteristics</i>	
Age	16.41 (1.62)
Male	52.2%
Percentage of childhood in poverty	11.02 (17.41)
<i>Mother Characteristics</i>	
Race	
Black	28.2%
Hispanic	19.9%
Non-Black, non-Hispanic	51.8%
Non-intact family at age 14	30.6%
Poverty in '79	24.7%
Claim a religion '79	92.1%
Expect to marry '79	98.6%
Self-esteem in '79	3.21 (.41)
Teen 1 st birth	20.9%
Education in '85	
Less than HS	17.4%
High school	42.9%
More than HS	39.7%
Grandmother's Education	
Less than HS	43.7%
High school	39.7%
More than HS	16.6%
Grandfather's Education	
Less than HS	43.3%
High school	32.8%
More than HS	23.9%

Note: Imputed cases excluded.

The sample was composed of adolescents with a mean age of about 16 and a half years old. Just over half of the sample was male, and, on average, 11% (with a very large standard deviation) of the sample's childhood was lived in poverty. The mothers in the sample were

about 30% Black, 20% Hispanic, and 50% non-Black non-Hispanic. Just under one-third of the mothers were living in a nonintact family at age 14, and about a quarter were living in poverty during the first wave of the NLSY. The mothers in the sample overwhelmingly reported having a religion and expecting to ever be married in 1979. Their mean self-esteem in 1979 was 3.21 on a scale of 1 to 4. About 20% of the mothers in the sample were teenagers at the time of their first birth.

Over 80% of the mothers had completed high school before the birth of the focal child, and nearly 40% had some education beyond high school. The grandparents of the focal child had lower levels of education, on average. About 43% of both grandmothers and grandfathers had less than a high school education, and only about 17% and 24% of grandmothers and grandfathers, respectively, had any education beyond high school.

Table 4. *Number of family structure transitions (measured two ways) in full sample.*

Number of Transitions (Maximum Measure)	Frequency	Percent of Sample	Number of Transitions (Traditional Measure)	Frequency	Percent of Sample
0	1,106	59.1	0	1,145	61.2
1	189	10.1	1	285	15.2
2	229	12.2	2	229	12.2
3	144	7.7	3	114	6.1
4	110	5.9	4	64	3.4
5	42	2.2	5	17	.9
6	27	1.4	6	8	.4
7	13	.7	7	6	.3
8	4	.2	8	1	.1
9	6	.3			

Table 4 presents the number of family structure transitions experienced among the 1,870 adolescents in the sample, which is an increasingly popular way to document family instability. The number of family structure transitions is calculated in two ways. In the maximum measure, every transition possible of the 16 listed in the methods section is included. In the traditional

measure (e.g. Fomby & Cherlin, 2007), transitions from cohabitation directly into marriage and from separation directly into divorce are not included. The thinking is that in the case of those transitions, no one is actually moving into or out of the household, so those transitions may not have the same kind of impact on adolescent outcomes. It is evident from this table that the way in which the number of transitions are calculated has important implications in family research, as using the more traditional measure results in substantially fewer transitions being counted. Regardless of which measure is used, the results indicate that the majority of adolescents experience 0 transitions. However, a substantial number (around 40% using either measure) do experience one or more family structure transitions at some point, and a handful experience a very high number of transitions (five or more).

In order to better understand the family experiences of this cohort, Table 5 reports the average number of transitions reported (using the maximum measure).

Table 5. *Descriptive statistics of transitions in full sample and among those with at least one and two transitions.*

Sample	Mean (S.D.)	Median	Mode	Range	n	Percent of Sample
Entire sample	1.10 (1.68)	0	0	0-9	1,870	100%
At least 1 transition	2.71 (1.60)	2	2	1-9	763	41%
At least 2 transitions	3.27 (1.46)	3	2	2-9	574	31%

The mean number of family structure transitions in the entire sample is just over 1 transition. The most common experience and the median is no transitions. When the sample is limited to those who have at least one transition, the mean is nearly 3 transitions. The most common experience for children who experience any family instability is to experience 2 transitions, which is also the median number of transitions.

Finally, the sample was limited to those who experienced multiple family transitions (at least 2). Among this group, which represented over 30% of the sample, the mean number of transitions was over 3, the median number of transitions was 3 and the most common experience was 2. There are many children who do not experience any family transitions, but there is a substantial number who experience multiple family structure changes.

Table 6. *Descriptive statistics of transitions by family structure at birth.*

Family Structure at Birth	Mean (S.D.)	Median	Mode	Range	n	Percent of Sample
Married biological parents	.87 (1.57)	0	0	0-9	1,411	75%
Cohabiting biological parents	2.17 (1.77)	0	1	0-9	156	8%
Single mother	1.57 (1.75)	1	0	0-8	280	15%

Table 6 presents the number of family structure transitions according to the adolescent's family structure at birth. The family structure at birth with the lowest mean number of transitions is a two married biological parent family. Children born into this type of family experience less than one transition on average during childhood (though the standard deviation, at 1.57, is quite large). The most common experience in this group is to have 0 transitions.

Children born to single mothers (about 15% of the sample) experience about one and a half family structure transitions, on average, over the course of childhood. The modal experience is 0 transitions, and the median number of transitions is 1.

Those born to cohabiting biological parents appear to be most likely to experience family structure transitions. On average, children born into this type of family experience over 2 transitions, and the modal experience is 1 transition. However, because this analysis uses the maximum measure of the number of transitions (including transitions from separation to divorce

and from cohabitation to marriage), it is possible that the larger number of transitions experienced among children born to cohabiting parents is a result of some cohabitations changing to marriage. Tables 7 and 8 examine this group in greater detail.

Table 7. *Most common outcomes of mother's cohabitation (born to cohabiting biological parents).*

	n	Percent of Sample
Breakup	69	44.2%
Marry	71	45.5%
Partner death	2	1.3%
Remain cohabiting	14	9.0%

Table 7 reveals that among children born to cohabiting biological parents, about 44% break up immediately following the cohabitation and about 45% get married immediately following the cohabitation. Nine percent of the sample remained cohabiting throughout their child's life, and two of the cohabiting fathers died. Table 8 presents the most common outcomes of the couples who are cohabiting at the child's birth and subsequently marry.

Table 8. *Most common outcomes of mother's cohabitation and subsequent marriage (born to cohabiting biological parents).*

	n	Percent of Sample
Remain married	39	54.9%
Separate or divorce	32	45.1%

According to Table 8, among the 71 children whose cohabiting parents married each other, just over half remained married, and just under half separated or divorced. The results of Tables 7 and 8 reveal that among all of the children (n=156) who were born to cohabiting biological parents, only 39 had parents who subsequently married and remained married. Combining that number with the 14 children whose parents were cohabited throughout their

childhood, one can determine that only 34% of the children who were born to cohabiting biological parents remained in stable households with those parents, either in marriage or cohabitation, throughout childhood.

Table 9 presents the number and percentage of adolescents in the sample who have ever experienced specific family structure transitions and further illuminates the diversity of family structure transitions experienced over the course of childhood in this cohort.

Table 9. *Number and percentage of adolescents in sample who have ever experienced specific types of family structure transitions.*

	n	Percent of Sample
Mother's marriage (wedding)	389	20.8%
Mother's divorce	442	23.6%
Mother's cohabitation beginning	343	18.3%
Mother's cohabitation dissolution	194	10.4%
Mother's partner's death	35	1.9%

The most commonly experienced transition was mother's divorce. About 24% of the sample ever experienced at least one divorce of their mother's. About 21% ever experienced the beginning of their mother's marriage, while about 18.3% had at least one of their mother's cohabiting partners move into their household. A smaller number, about 2% of the sample, ever experienced the death of their mother's partner (their biological father or stepfather). Though many children did not experience any transitions, about 20% of the sample experienced at least one divorce, marriage, or onset of cohabitation. Ten percent experienced at least one cohabitation dissolution.

The number of union formations and union disruptions in the full sample are presented in Table 10. A union formation is defined as a mother's husband or partner moving into the house (transitions from cohabitation to marriage are not counted here). A union disruption is defined as

the end of a relationship that results in the husband or partner moving out of the house (separation to divorce is not counted in this measure).

Table 10. *Number of union formations and disruptions in full sample.*

Union formations	Frequency	Percent of sample	Union disruptions	Frequency	Percent of sample
0	1368	73.2%	0	1207	64.5%
1	393	21.0%	1	464	24.8%
2	87	4.7%	2	172	9.2%
3	20	1.1%	3	19	1.0%
4	1	.1%	4	7	.4

About 73% of the sample never experienced a union formation, which is slightly more than the 65% of the sample who never experienced a union disruption. On the whole, it appears that union disruptions are slightly higher in frequency than union formations. In further analyses (not shown), the mean number of union formations experienced was computed to be .34, while the mean number of union disruptions experienced was .48. The standard deviations were large at .62 and .73, respectively.

Table 11 presents the mean percentage of childhood spent in certain family structures according to children's family structure at birth.

Table 11. *Mean percentage of childhood spent in various family structures over time by family structure at birth.*

Family Structure at Birth	Single-mother home	Married home	Cohabiting home
Married biological parents	13%	85%	2%
Cohabiting biological parents	31%	33%	35%
Single mother	75%	17%	8%
Full sample (all family structures at birth)	24%	70%	6%

Table 11 clearly shows how family structure at birth is predictive of the family structures in which children are likely to spend much of their childhood. In the full sample, children spend 70% of their childhood in a married home, on average. This may be any type of married home (biological father or stepfather), and there may be gaps in between time in a married home, but the majority of childhood is spent in some type of married household for the average child. About a quarter of childhood is spent in a single-mother home, and about 6% is spent in a cohabiting home, on average, in the full sample.

Children's family structure at birth appears to be strongly associated with their future family structure experiences. Children born to married biological parents, for example, spend 85% of their childhood in a married home, 13% of their childhood in single-parent home, and 2% of childhood, on average, in a cohabiting home. Those born to single mothers have very different percentages of childhood spent in these family structures. Children born to single mothers spend about 75% of their childhood in a single-mother home, and just 17% and 8% of their childhood in married and cohabiting households, respectively. Those born to cohabiting biological parents appear to spend their childhood about equally divided between single-mother, married, and cohabiting families.

If they are born to married biological parents or a single mother, children are likely to spend about 75% of their childhood in that same family structure into which they are born. Those born to cohabiting biological parents spend the most time in cohabiting families, closely followed by married and single-mother families.

Another way to analyze children's family structures over their entire childhood is to examine the total number of live-in partners the mother has. Table 12 presents the number of

marriage and cohabiting partners the mother reported during the focal child's life by family structure at birth.

Table 12. *Mean number of live-in partners mother reported during child's life by family structure at birth.*

Family Structure at Birth	Marriage partners	Cohabiting partners
Married biological parents	1.13	.14
Cohabiting biological parents	.67	1.41
Single mother	.45	.53
Full sample (all family structures at birth)	.98	.31

Table 12 demonstrates that family structure at birth is also somewhat predictive of the average number of mother's marriage and cohabiting partners children experience. On average, the sample experiences about 1 marriage partner and does not experience a cohabiting partner. Children born into married biological parent families experience, on average, about 1 marriage partner and no cohabiting partners, while those born into cohabiting biological parent families experience almost 1 marriage partner and almost 1 and a half cohabiting partners, on average. Those born to single mothers are least likely to spend time in a household with a mother's cohabiting or married partner.

Clearly there is much diversity in the sample, and there are many different ways to empirically present and analyze children's family experiences over the course of childhood. Another way to examine this diversity is to look directly at the actual family structure trajectories children experience. In the full sample of 1,870 adolescents, there were 187 different family

structure trajectories representing children's cumulative family structure experiences over the course of childhood.

Table 13 presents the 22 most commonly experienced trajectories. There are two things that must be noted when looking at this table. First, in the NLSY data, some mothers reported a separation before their divorce and others only reported a divorce and no separation. In Table 13, similar trajectories that are different only in whether the mother reported a separation before divorce are listed next to each other. Second, it is important to remember that Table 13 shows the less complex trajectories with fewer transitions, because as children experience more transitions, the number of children who experienced exactly the same trajectories decreases dramatically. For example, many of the 187 different trajectories are experienced by fewer than five children because the exact order of experiencing different family structures varies so much.

As shown in Table 13, the most common trajectory was to be born to married biological parents and never experience any family structure transitions. Just over half of the sample (52%) experienced this trajectory.

The next most common trajectory was to be born to married biological parents who divorce and do not have any other transitions. Combining those who reported a separation prior to divorce and those who did not, about 8% of the sample was born to married parents who divorced and then did not have any other transitions.

The third most common trajectory was to be born to a single mother who never had a partner in the household. About 6% of the sample experienced this stable single-mother family. Thus, two of the top three most common family structure trajectories were stable trajectories with no transitions – stable married biological parent families and stable single mother families.

Two percent of the sample were born to cohabiting biological parents who subsequently married and stayed married. The other family structure trajectories were all experienced by only 1% of the sample.

Although Table 13 presents the 22 most common family structure trajectories, it does not include the family structure experiences of 17% of the sample. There are 165 other trajectories among the remaining 322 children in the sample. It is evident in looking at Table 13 that beyond the few trajectories described above, children's long-term living arrangements vary widely.

In order to better understand the predictors into various trajectories and outcomes associated with experiencing different trajectories of living arrangements, latent class analysis is utilized in the next chapter to group the children into a more parsimonious number of useful trajectories.

Table 13. *Number and percentage of adolescents in sample who experienced most common family structure trajectories.*

Family structure at birth	Trajectory after birth	n	%
Married biological parents	no transitions	971	52%
Married biological parents	→ separate → divorce	88	5%
Married biological parents	→ divorce	50	3%
Married biological parents	→ separate	27	1%
Married biological parents	→ separate → divorce → remarry stepfather	26	1%
Married biological parents	→ divorce → remarry stepfather	18	1%
Married biological parents	→ separate → divorce → cohabit with stepfather → → remarry stepfather	26	1%
Married biological parents	→ divorce → cohabit with stepfather → remarry stepfather	16	1%
Married biological parents	→ separate → divorce → cohabit with stepfather → → breakup	14	1%
Married biological parents	→ separate → cohabit with stepfather → divorce → → remarry stepfather	11	1%
Married biological parents	→ separate → divorce → cohabit with stepfather	9	1%
Married biological parents	→ divorce → remarry stepfather → divorce	10	1%
Married biological parents	→ father dies	15	1%
Married biological parents	→ separate → reunite	13	1%
Cohabiting biological parents	→ marry biological father	39	2%
Cohabiting biological parents	→ breakup	24	1%
Cohabiting biological parents	no transitions	14	1%
Single mother	no transitions	117	6%
Single mother	→ cohabit with stepfather → marry stepfather	20	1%
Single mother	→ cohabit with stepfather → breakup	17	1%
Single mother	→ marry stepfather	13	1%
Single mother	→ cohabit with biological father → marry biological father	10	1%
TOTAL	22	1,548	83%
Other trajectories	165	322	17%
Total number of unique trajectories	187	1,870	100%

*separations and divorces are counted as individual transitions in this analysis.

Chapter Summary

Chapter 4 illustrates the varied circumstances in which American children grow up today. About 60% of the sample grew up in stable households, that is, they experienced no family structure transitions over the course of their childhood. Of these, the huge majority grew up with married biological parents, but a substantial minority (over 10%) of those children in stable households grew up with a single mother who never had a spouse or partner move in. Much smaller numbers (less than 1% of the sample) grew up with stable cohabiting parents, and about 2% of the sample was born to cohabiting parents who subsequently married and stayed married.

About 40% of the sample experienced at least one family structure transition by the time they were 14-19 years old. Those who experienced at least one transition, on average, experienced close to three transitions (and median and mode of 2 transitions). Over 30% of the sample experienced at least 2 transitions. Using the traditional measure of family structure transitions, which does not count cohabitations that transition into marriages or separations that transition into divorces, 5.1% of the sample experienced four or more family structure transitions. Using the maximum measure of the number of transitions, nearly 11% of the sample experienced four or more family structure transitions.

One striking finding in this chapter is the extent to which family structure at birth appears to be predictive of children's family structure trajectories. The number of family structure transitions children experience is associated with family structure at birth, for example. Children born to married biological parents experienced less than one transition, on average, while those born to single mothers experience 1.5 transitions, on average, and those born to cohabiting biological parents experienced over two transitions, on average. In addition, both the percentage

of time that children spend in different family structures and the number of mother's spouses and partners they live with seem to vary with family structure at birth.

Overall, Chapter 4 demonstrates the variety of family structures that the children in the sample experienced and the importance of taking children's entire family structure histories into account in future family research. The findings in this chapter illustrate that traditional research that employs static measures of family structure does not accurately capture the family experiences of the 40% of children who experience any instability in family structure over the course of childhood. Studies that take the number of family structure transitions children experience into account represent a major improvement over static measures, but simply counting the number of transitions still obscures exactly what types of family structures and transitions children are experiencing.

Chapter 5

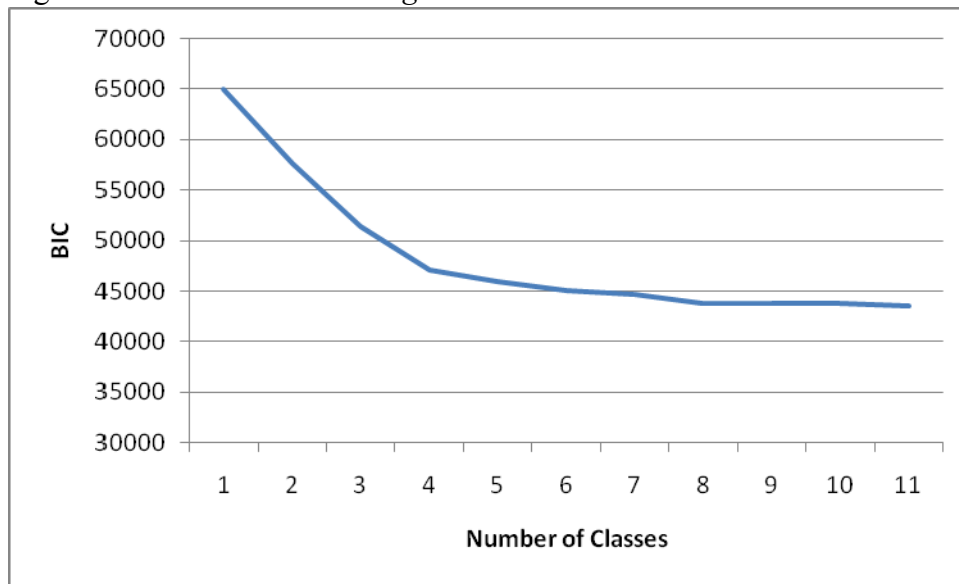
Results: Latent Class Analysis

The results in Chapter 4 presented descriptive analyses of children's long-term family structure histories. Table 13 presented the number and percentage of adolescents in the sample who experienced the most common family structure trajectories. However, even including the 22 most common trajectories does not capture the experience of nearly 20% of the sample, as there were 187 different trajectories experienced by the 1,870 adolescents in the sample.

Latent class analysis in *Mplus* (version 5) was utilized in the next part of the analysis to determine the basic patterns of children's family structure experiences and obtain a parsimonious number of trajectories for further analysis. As a precaution against depending on a local instead of a global maxima, estimation in the latent class analysis was based on 500 iterations for each of 20 random starting values. The highest log likelihood was utilized as the starting value for the final optimization.

Latent class analysis was run on models specifying 1 to 12 latent classes, and three statistical methods were used to discover the best solution. First, the Bayesian Information Criterion (BIC) declined linearly as the number of classes was increased from 1 to 12. Lower values suggest better solutions, but statistical research indicates that the BIC may overestimate the optimum number of classes (Nylund, Asparoutiov, & Muthen, 2007). However, the BIC clearly leveled off at the 5-class solution, which was eventually determined to be the best solution (see Figure 1).

Figure 1. *Model selection using BIC criteria.*



Second, entropy was used to determine the best number of classes, as it is a way to determine unambiguous classification into a particular number of separated groups (Wedel & Kamakura, 1998). The entropy values reached a maximum of .997 in the 5-class solution as well as several other solutions, indicating that the 5-class solution was among the best. Third, the Lo-Mendell-Rubin (L-M-R) likelihood ratio test of model fit (Lo, Mendell, & Rubin, 2001) compares the fit of each model to the data with the solution with one fewer class. The L-M-R suggested a perfectly significant improvement ($p=.0000$) from the 4-class solution to the 5-class solution, and increasing p -values thereafter (up to $p=1.000$ for the 8-class through 12-class solutions, indicating zero significant improvement in model fit with the addition of more classes). Taking all three tests into account, as well as a substantive interpretation of model usefulness, the 5-class solution emerged as the definitive best solution.

The children in the sample were assigned to one of the five classes based on their probability of being a member of each class (using the highest probability to assign classes resulted in class membership almost exactly identical to class sizes resulting from the latent class

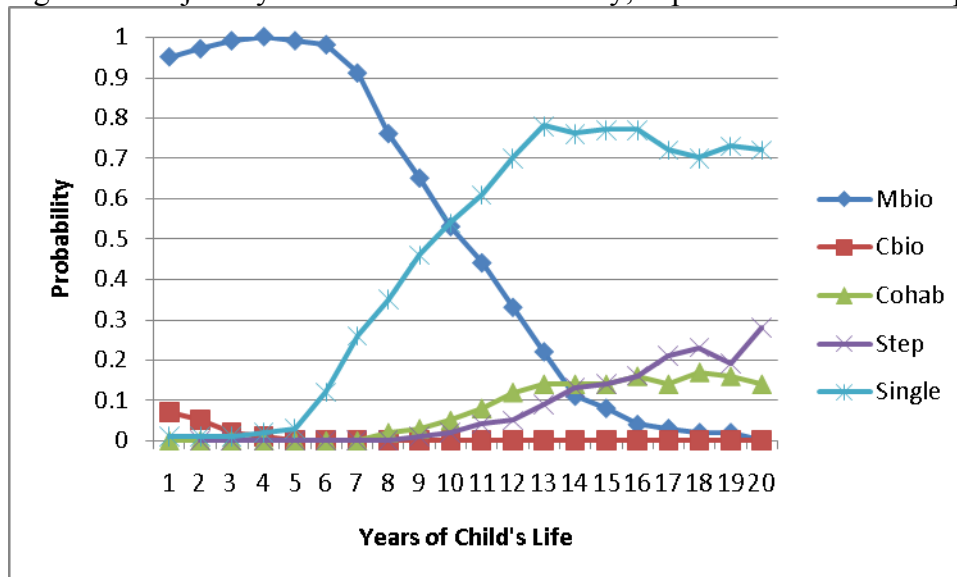
probabilities identified by *Mplus*). The 5 trajectories as identified by the 5-class solution are shown in Table 14.

Table 14. *Latent Class Analysis: Membership (% or M).*

	n	%
Class 1: Born into married family, experience divorce or separation.	225	12.0
Class 2: Long-term single mothers.	329	17.6
Class 3: Married continuously.	1031	55.1
Class 4: Cohabiting biological parents who marry or break up.	72	3.9
Class 5: Gain a stepfather.	214	11.4

The first trajectory, which contained 12% of the sample, was made up of children who were born into a married two-biological parent family in which the parents subsequently divorced or separated. Figure 2 presents the probability of children in the first trajectory experiencing each family structure over time.

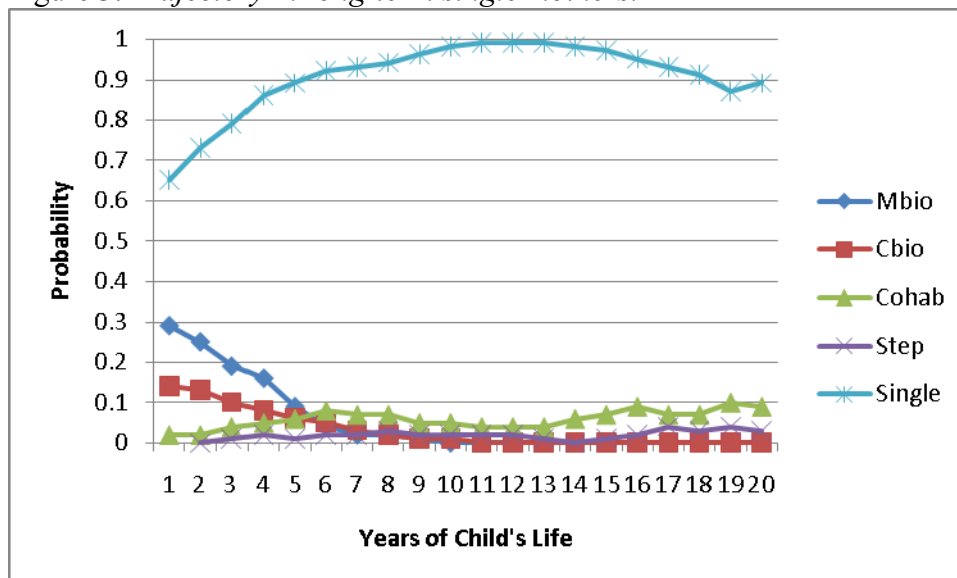
Figure 2. Trajectory 1: Born into married family, experience divorce or separation.



Children in this trajectory were born to two married biological parents. Sometime in middle childhood, these children experienced the divorce or separation of their parents, and their probability of living in a two married biological parent family plunged. At the same time, their probability of living with a single mother rose to between 70 and 80% in the teen years. Those who did not live with a single mother lived with a married or cohabiting stepfather after their parents' divorce. The odds of living with a married stepfather were higher than the odds of living with a cohabiting stepfather in this group.

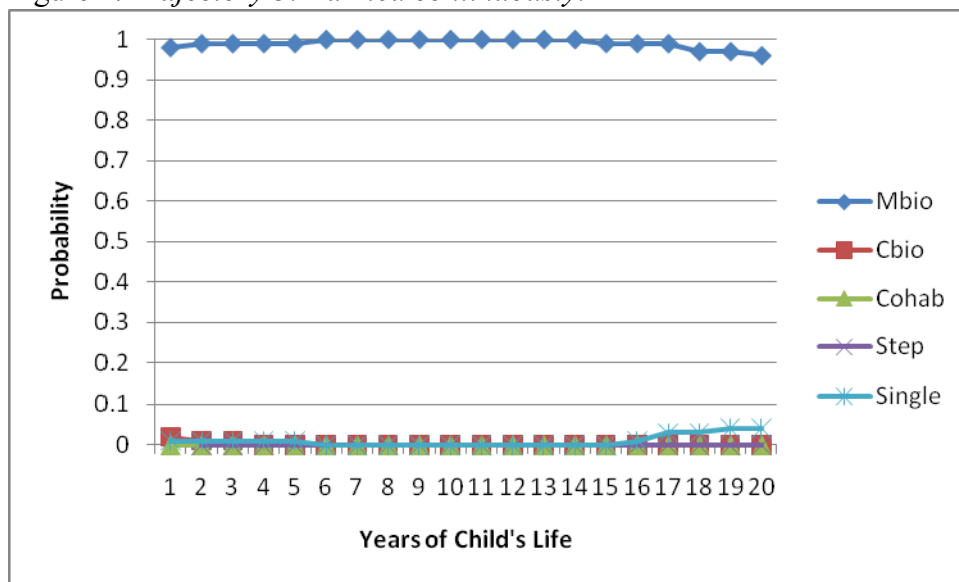
Figure 3 presents the trajectory of class 2: children living with long-term single mothers, who accounted for about 18% of the sample.

Figure 3. *Trajectory 2: Long-term single mothers.*



Children in this trajectory spent the overwhelming majority of their childhood living with a single mother. In the early years some lived with married or cohabiting biological parents, but the probability of living with two parents was nearly zero by around age 6.

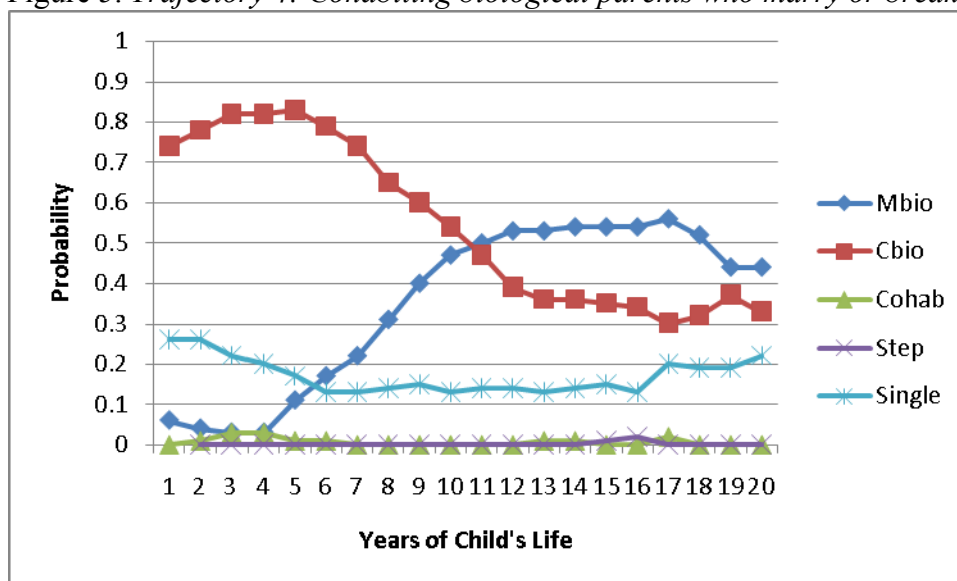
Figure 4. *Trajectory 3: Married continuously.*



Trajectory 3 was the largest class, with 55% of the sample experiencing a stable two married biological parent family. Children who experienced this trajectory were born to two married biological parents and remained in that family structure their entire lives, except possibly at the very end of the teenage years, when less than 5% of the children in this trajectory began to live with a single mother as the result of separation or divorce.

The fourth class was composed of children who were born to cohabiting biological parents. This trajectory was the smallest of the five; only 4% of the sample were in this class.

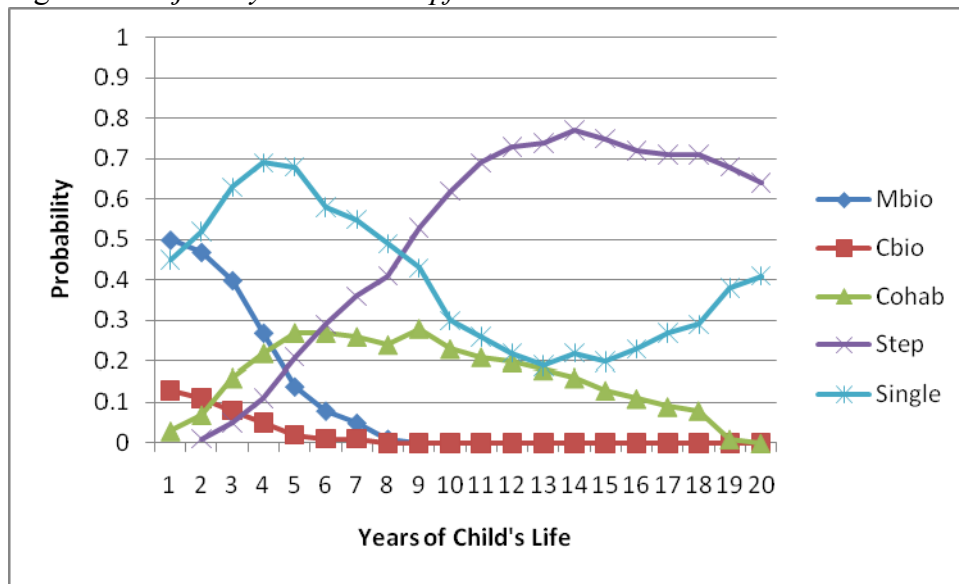
Figure 5. *Trajectory 4: Cohabiting biological parents who marry or break up.*



The children in this trajectory had a high probability of being born to two cohabiting biological parents. By the late teen years, children in this class still had about a 30-40% chance of living with two cohabiting biological parents. They were most likely to live with two married biological parents by the end of childhood, and had about a 20% probability of living with a single mother. It is notable that children whose parents married and children whose parents broke up are in the same trajectory instead of the children whose parents married fitting in with the continuously married class.

The fifth and final trajectory was distinctive because the children gained a stepfather at some point over the course of childhood. This class is depicted in Figure 6.

Figure 6. *Trajectory 5: Gain a stepfather.*



Class 5 was made up of children who shared the experience of gaining a stepfather, usually a married stepfather, at some point during childhood. These children were born into a variety of family structures, including single mothers, married biological parents, and cohabiting biological parents. About half of them were born to married biological parents who subsequently divorced (nearly all did so by age 8), so they share that experience with class 1. However, the probability of living with a stepfather who was married to the child's biological mother increased sharply in middle childhood in class 5, then leveled off and declined a bit at the end of the teenage years as some of those marriages ended. The probability of living with a cohabiting stepfather peaked around age 9 at nearly 30%, then declined as some of those cohabitations with stepfathers became marriages and others broke up. The probability of living with a married stepfather peaked around age 14 at nearly 80%, as mothers married some of the cohabiting stepfathers or began marriages not preceded by cohabitation. This group clearly experienced some substantial instability.

It is useful to look at the number of family structure transitions children in each family structure trajectory experienced. This information is presented in Table 15.

Table 15. *Number of family structure transitions by latent class membership.*

Latent Class	Mean (S.D.)	Median	Mode	Range
Trajectory 1: Born into married family, experience divorce or separation.	2.48 (1.47)	2	2	1-9
Trajectory: Long-term single mothers.	1.69 (1.75)	1	0	0-7
Trajectory 3: Married continuously.	.09 (.40)	0	0	0-4
Trajectory 4: Cohabiting biological parents who marry or break up.	1.53 (1.33)	1	1	0-6
Trajectory 5: Gain a stepfather.	3.55 (1.69)	3	3	1-9

Table 15 illustrates the great variation in number of family structure transitions between the different classes. Trajectory 3, the continuously married group, had the least number of transitions because the parents in that group were stably married. That group of children experienced virtually no transitions. All of the other trajectories of living arrangements experienced at least one transition, on average.

The class with the most family structure transitions was made up of children who gained a stepfather at some point during childhood. These children experienced three and a half transitions, on average, and the median and modal number of transitions is also 3. These children make up about 11% of the sample. The group with the second highest number of transitions is the children who were born to married parents who subsequently divorced. Children who experienced this trajectory of living arrangements experienced about two and a half transitions, on average, with a median and mode of 2 transitions, as well.

The other two trajectories, living long-term with a single mother and being born to cohabiting parents, both had about a transition and a half, on average, and a median of 1 transition. The modal number of transitions among single mothers was zero, and the modal number of transitions among cohabiting biological parents who marry or break up was 1. However, the mean number of transitions was slightly higher for the single mother group, indicating that most children lived with a stable single mother, but those children who experienced any transitions experienced more, on average, than children in the cohabiting parents group.

Another way to better understand the living arrangements of children in these various trajectories is to look at the percentage of children in each trajectory who have *ever* experienced certain family structures.

Table 16. *Percentage of children who ever experienced common family structure transitions.*

Latent Class	Child ever experienced				
	Marriage (wedding)	Divorce	Start Cohabitation	End Cohabitation	Death of husband or partner
Trajectory 1: Born into married family, experience divorce or separation.	29.9%	79.0%	32.1%	9.8%	5.4%
Trajectory 2: Long-term single mothers.	15.8%	31.9%	31.6%	32.2%	3.3%
Trajectory 3: Married continuously.	3%	1.3%	.4%	0%	.2%
Trajectory 4: Cohabiting biological parents who marry or break up.	59.7%	12.5%	36.1%	20.8%	2.8%
Trajectory 5: Gain a stepfather.	91.6%	64.5%	64.8%	23.8%	3.7%

Children in the five different trajectories of living arrangements over the course of childhood vary widely in which particular family structure transitions they have ever experienced. About 80% of the children in Trajectory 1 experienced a divorce at some point (the rest of the marriages ended through separation). Roughly 30% of the children in this class

experienced a mother's marriage or a mother's cohabitation. About 10% experienced the end of a cohabitation. This means that among those 10%, the trajectory was likely: born into marriage, experienced the end of parents' marriage, experienced the beginning of a cohabitation, and then experienced the end of that cohabitation (at a minimum).

About 30% of children who lived with long-term single mothers experienced a divorce, onset of cohabitation, or cohabitation breakup at some point. The children who lived with continuously married parents experienced almost no transitions, and the few that did occur were in the later years of childhood.

Children who were born to cohabiting parents were fairly likely to experience their mother's marriage – about 60% of these children did experience their mother's marriage to their father or a stepfather at some point. 36% of these children experienced the onset of cohabitation (mostly to stepfathers, as they were born to cohabiting parents), and about 20% ever experienced the end of their mother's cohabitation.

Those in trajectory 5, who gained a stepfather at some point, almost all experienced their mother's marriage – nearly 92% did. High numbers also experienced divorce and the onset of cohabitation – about 65% for each. Nearly a quarter experienced cohabitation dissolution, as well. These numbers are in line with previous findings that this is the group that experiences the most transitions overall.

In order to better understand who the children experiencing each of these family structure trajectories are, Table 17 presents demographic characteristics of the sample according to latent class membership.

Table 17. *Demographic Characteristics by Latent Class Membership (% or M).*

	Born married, divorce or separation	Long-term single mothers	Married continuously	Cohabiting parents marry or break up	Gain a stepfather
<i>Child characteristics</i>					
Age	16.59 (1.54)	16.34 (1.59)	16.37 (1.62)	16.26 (1.58)	16.60 (1.71)
Male	47.8%	55.9%	53.2%	44.4%	48.6%
<i>Mother Characteristics</i>					
Race					
Black	19.6%	66.6%	15.1%	44.4%	38.0%
Hispanic	21.9%	15.5%	19.6%	25.0%	24.8%
Non-Black, non- Hispanic	58.5%	17.9%	65.3%	30.6%	39.3%
Non-intact family at age 14	33.9%	53.5%	20.8%	37.5%	37.1%
Poverty in '79	22.9%	47.6%	15.7%	36.9%	32.5%
Claim a religion '79	92.8%	90.5%	93.2%	95.8%	87.4%
Expect to marry '79	98.7%	96.7%	99.5%	95.8%	98.1%
Self-esteem in '79	3.22 (.42)	3.13 (.41)	3.25 (.41)	3.14 (.44)	3.16 (.39)
Teen 1 st birth	26.8%	33.7%	12.3%	33.3%	31.8%
Education in '85					
Less than HS	13.0%	33.1%	10.6%	36.1%	23.7%
High school	47.0%	42.3%	40.6%	50.0%	48.3%
More than HS	40.0%	24.5%	48.8%	13.9%	28.0%
Grandmother's Educ					
Less than HS	45.1%	53.0%	36.9%	69.1%	53.7%
High school	38.1%	40.2%	41.2%	25.0%	37.9%
More than HS	16.7%	6.8%	21.9%	5.9%	8.4%
Grandfather's Educ					
Less than HS	45.5%	59.9%	35.9%	64.4%	50.3%
High school	30.5%	29.1%	35.2%	25.4%	30.3%
More than HS	24.0%	10.9%	29.0%	10.2%	19.4%

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

There is a good deal of variation on background characteristics between the latent classes on some variables and little variation on others. Racial variation is evident between classes. Black mothers were more likely to have children who experienced a long-term single mother family or a cohabiting family than the other trajectories. Hispanics were fairly evenly divided between the classes. Non-black, non-Hispanic children were most likely to experience the married continuously or married and then divorce trajectories and least likely to experience childhood in a long-term single mother family.

Having a mother who lived in a non-intact family at age 14 also varied between groups. Those whose mothers lived in a non-intact family at age 14 were most likely to experience the long-term single mother trajectory. Having a mother who lived in poverty in 1979 was most likely among the long-term single mother children and least likely among the children in continuously married homes.

The extent to which these variables were predictive of latent class membership was analyzed using multinomial logistic regression models. The results are presented in Table 18. The reference group is trajectory 3: married continuously.

Table 18. Summary of multinomial logistic regression analysis for mother and child characteristics predicting latent class membership.

	Class 1: Born married, divorce or separation			Class 2: Long-term single mothers			Class 4: Cohabiting parents marry or break up			Class 5: Gain a stepfather		
	<i>B</i>	<i>SE</i> <i>B</i>	<i>e^B</i>	<i>B</i>	<i>SE</i> <i>B</i>	<i>e^B</i>	<i>B</i>	<i>SE</i> <i>B</i>	<i>e^B</i>	<i>B</i>	<i>SE</i> <i>B</i>	<i>e^B</i>
<i>Child characteristics</i>												
Male ^a	-.21	.15	.81	.18	.15	1.19	-.32	.25	.73	-.15	.15	.86
<i>Mother Characteristics</i>												
Race												
Black ^{abcde}	-.05	.22	.95	2.32 ***	.19	10.19	1.45 ***	.33	4.24	1.02 ***	.20	2.76
Hispanic ^a	.06	.20	1.06	.61 **	.22	1.83	.46	.35	1.58	.48*	.21	1.62
Non-Black, non-Hispanic	---	---	---	---	---	---	---	---	---	---	---	---
Non-intact family	.56 **	.17	1.75	.74 ***	.16	2.10	.26	.28	1.30	.39 *	.18	1.47
Poverty in '79	.33	.21	1.39	.51 **	.18	1.67	.40	.31	1.49	.40 *	.20	1.48
Claim a religion '79 ^f	-.01	.29	.99	-.22	.27	.81	.65	.62	1.92	-.65 *	.26	.52
Expect to marry '79	-.85	.75	.43	-.89	.64	.41	-1.51	.82	.22	-.75	.73	.47
Self-esteem in '79	-.03	.20	.97	-.31	.20	.74	.01	.34	1.01	-.11	.21	.90
Teen 1 st birth ^{abe}	.87 ***	.20	2.40	.15	.19	1.16	.21	.30	1.23	.61 **	.20	1.83
Education in '85												
Less than HS ^{ab}	-.38	.26	.68	.48 *	.21	1.61	.64	.32	1.90	.10	.23	1.11
High school	---	---	---	---	---	---	---	---	---	---	---	---
More than HS ^{abf}	-.17	.17	.84	-.79 ***	.18	.45	-1.51 ***	.38	.22	-.61 **	.19	.55
Constant	-.74			-.46			-2.10			-.29		
N	224			329			72			214		
Model Fit	χ^2			<i>df</i>			Pseudo R-Squares					
	572.664***			44			Cox and Snell		Nagelkerke		McFadden	
							.264		.287		.121	

* $p < .05$. ** $p < .01$. *** $p < .001$. e^B = exponentiated *B*. Note: class 3, married continuously, is reference class. ^aSignificant differences at $p < .05$ between class 1 and class 2. ^bSignificant differences at $p < .05$ between class 1 and class 4. ^cSignificant differences at $p < .05$ between class 1 and class 5. ^dSignificant differences at $p < .05$ between class 2 and class 4. ^eSignificant differences at $p < .05$ between class 2 and class 5. ^fSignificant differences at $p < .05$ between class 4 and class 5.

In table 18, we see that child gender is generally not predictive of what family structure trajectory children experience, with the exception of male children being more likely to live with long-term single mothers than to be born into a married family that subsequently breaks up. Mother's race is a statistically significant predictor of latent class membership. Children with Black mothers are 10 times more likely to live with a long-term single mother, 4 times more likely to live with cohabiting parents who marry or breakup, and nearly 3 times more likely to live in the gain a stepfather trajectory than to experience the continuously married trajectory compared to children with non-Black non-Hispanic mothers, and there are differences between almost all other trajectories as well. Children with Black mothers are also significantly more likely to be in trajectory 2 (single mothers), 4 (cohabiting parents who marry or break up), and 5 (gain a stepfather) than trajectory 1 (born married, divorce) and more likely to be in trajectory 2 than trajectories 4 or 5 compared to children of non-Black Non-Hispanic mothers. Children with Hispanic mothers are more likely to live with a long-term single mother or to live in the gain a stepfather trajectory than the continuously married trajectory. They are also more likely to live with a long-term single mother than parents who are married and subsequently break up compared to children with non-Black non-Hispanic mothers. Children with Black or Hispanic mothers are not any more or less likely than children with non-Black, non-Hispanic mothers to experience the continuously married or married and then divorce or separate trajectories.

In three out of four models predicting latent class membership into a trajectory other than the continuously married group, mother's family structure at age 14 was a statistically significant predictor of their child's family structure trajectory. Having a mother who lived in a non-intact family at age 14 was associated with being more likely to be in the long-term single mother group, the born married and then divorce or separate group, and the gain a stepfather group

compared to the continuously married group. However, mother's family structure at 14 was not predictive of experiencing one trajectory versus another among the remaining trajectories.

Having a mother who lived in poverty during her youth was also associated with higher odds of living with a long-term single mother group and gaining a stepfather compared to living with continuously married parents, but was not predictive of experiencing one trajectory versus another among the remaining trajectories, either.

For the most part, the variables capturing mother's religious views, marital expectations, and self-esteem were not significant predictors of the family structure in which her children were raised, with the exception of reporting having a religion (as opposed to not having a religion) being associated with lower odds of children experiencing trajectory 5, gain a stepfather, compared to living with continuously married parents and cohabiting parents who subsequently marry or break up. Trajectory 5 was the trajectory with the most instability, so it is possible that being religious is associated with a lower likelihood of having several live-in relationships.

Mother having first birth while a teenager was associated with higher odds of children being in trajectories 1, born married and subsequently divorce or separate, and trajectory 5, gain a stepfather, compared to the continuously married trajectory. Mother having first birth as a teenager also increased the odds of experiencing trajectory 1, born married and subsequently experience separation or divorce, compared to trajectory 2, long-term single mothers, and trajectory 4, cohabiting parents who marry or break up. It also increased the odds of experiencing trajectory 5, gain a stepfather, compared to trajectory 2, long-term single mothers. Mother's education before the birth of the focal child works in expected directions, with women who have more education being less likely to experience trajectories not associated with being married compared to those with a high school education.

Chapter Summary

The latent class analysis revealed five major classes of children's family structure experiences: born into married family and experience divorce or separation; long-term single mothers; married continuously; cohabiting biological parents who marry or break up; and gain a stepfather. The number of family structure transitions children experienced and the percentage of children who ever experienced certain family structure transitions varied widely by latent class trajectory. Trajectory 5 (gain a stepfather) had the highest mean number of transitions; children in this trajectory experienced 3.6 transitions, on average, and the median and mode were also 3 transitions. Trajectory 1 (born into married family, experience divorce or separation) also had a higher number of transitions, on average, with a mean of 2.5 transitions and median and mode of 2 transitions. The married continuously trajectory had the lowest number of transitions, and long-term single mothers and cohabiting parents who either broke up or married fell in between.

The latent class analysis in chapter 5 yielded five latent subgroups of family structure trajectories based on an unobservable latent characteristic of mothers that determined mothers' relationship trajectories while the focal children were growing up. It is perhaps just as useful to note the theoretically possible latent classes that did *not* emerge after the data was subjected to the latent class analysis. For example, there was no "other" group of children who experienced an extremely high number of transitions that could not be neatly identified. Class 5, the stepfather group, had the highest level of instability, but what characterized this group was the fact that the children in it gained at least one (usually married) stepfather at some point during

their childhood, not that they experienced many different kinds of transitions involving biological and non-biological fathers that did not fit together.

There was also no cohabiting stepfather group. This may be because the percentage of children who ever experienced a cohabiting stepfather was too small, and perhaps cohabiting stepfathers often became married stepfathers in class 5, but it is noteworthy that cohabiting and married stepfathers were not separated by the LCA. Another finding from the LCA is the fact that class 4 was distinguished by the fact that the children were born to (or soon after birth lived with) cohabiting biological parents. The cohabiting parents who later married were not merged in with Class 3 (stably married parents), though some current literature based on biological theories suggests that the children of cohabiting biological parents who marry will have similar outcomes to those whose parents are continuously married. Rather, children born to these parents are in the same class as those born to cohabiting biological parents who break up. It is cohabitation that distinguishes them. Perhaps that is because of the high likelihood that these children will experience a parental breakup even if their parents do marry, as described in chapter 4.

Mother's education, mother's race, mother having a first birth as a teenager, mother's experiencing a nonintact family, and mother experiencing poverty in youth were significant predictors of children's family structure trajectories. Mother's education, mother's race, and mother having a first birth as a teenager distinguished several of the groups from each other, while mother's experiencing a nonintact family and mother experiencing poverty in youth decreased the odds of experiencing the continuously married trajectory relative to the others but none of the other trajectories from each other.

Generally, the results in chapter 5 show that children of continuously married mothers are advantaged in terms of their mother's family of origin income and family stability. Their mothers are also least likely to have had a teen birth and have more education. This is consistent with prior literature on family structure which finds that children of stably married biological parents have better outcomes in part because their parents are selected into stable marriage because of positive attributes. The most disadvantaged group in terms of mother's own family background is class 2, children of long-term single mothers, whose mothers were most likely to grow up in a non-intact family and experience childhood poverty themselves. On the other hand, the class with the least educated mothers and least educated grandmothers is class 4, children born to cohabiting parents who marry or break up. These findings are also consistent with current research. It is clear that selection is playing a role in which children are experiencing which family structure trajectories as they grow up, so it will be important to control for the background characteristics of the mother in Chapter 6 and in future research.

Chapter 6

Results: Associations between Trajectories of Children's Living

Arrangements and Outcomes in Adolescence

The previous chapters described children's long-term living arrangements, including the most common trajectories of living arrangements children experience and some characteristics that predict membership into those trajectories of living arrangements. The second research aim in this project is to determine how experiencing different family structure trajectories is associated with adolescent outcomes and also to assess how other aspects of long-term living arrangements, such as the number of transitions or number of mother's partners children experience, predict well-being. Three adolescent outcomes are examined in this chapter using ordinary least squares regression: depression (CES-D), delinquency (SRD), and mother-child closeness. Adolescents are included in the analyses predicting each of these outcomes if they were asked the questions (adolescents who were not classified as young adults in the CNLSY were not asked about closeness to mother or depression, and adolescents older than 17 were not asked about delinquency) and provided valid responses (missing values were not imputed on the dependent variables). Adolescents 15-19 were included in analyses predicting mother-child closeness and depression, and adolescents 14-17 were included in analyses predicting delinquency. Not including missing data on outcomes due to age restrictions, about 4% of the sample were missing on depression, about 7% were missing on delinquency, and about 4% were missing on mother-child closeness).

Latent Class Membership, Number of Transitions, and Adolescent Outcomes

The next set of analyses use latent class membership described in Chapter 5 to predict three adolescent outcomes. Bivariate models exploring the effects of latent classes on outcomes

are run in the first models, controls are added in the second models, and an additional variable representing percentage of childhood in poverty is included in the third models to see if it is a mechanism linking family structure trajectories to outcomes.

Table 19 predicts the effects of experiencing different latent class trajectories on depression. The first model examines the bivariate association between latent class membership and depression. Classes 1 and 2 (born married, divorce and long-term single mothers) were significant predictors of depression in this model compared to Class 3 (married continuously). Adolescents who grew up in these two family structure trajectories were more likely to report depressive symptoms than those who grew up with parents who were continuously married. There were no significant differences in depression between the other classes.

In Model 2, when controls were added, the same significant class differences in depression remained. Model 3 revealed that the variable representing percentage of childhood in poverty is not a significant predictor of depression, but Class 2 (single mothers) does lose significance as a predictor of depression compared to Class 3 (married continuously) when controlling for it. However, the magnitude of the coefficient does not change; the p-value increased from $p=.046$ in Model 2 to $p=.056$ in Model 3, so the coefficient for Class 2 is still very close to being statistically significant. There are no significant differences between the other family structure classes.

Table 19. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership on Depression.*

	Model 1: Classes	Model 2: Classes and Controls	Model 3: Classes, Controls, and Poverty
Class 1: Married family, divorce or separate.	.11**	.09*	.09*
Class 2: Long-term single mothers.	.08*	.07*	.08
Class 3: Married continuously.	--	--	--
Class 4: Cohabiting parents, marry or break up.	.06	.04	.04
Class 5: Gain a stepfather.	.08	.05	.05
Class Differences ^a	Class 1>Class 3; Class 2>Class3	Class 1>Class 3; Class 2>Class3	Class 1>Class 3
<i>Child Characteristics</i>			
Male	--	-.15***	-.15***
Age	--	.00	.00
<i>Mother Characteristics</i>			
Race			
Black	--	-.02	-.02
Hispanic	--	-.01	-.01
Non-Black, non-Hispanic	--	--	--
Non-intact family	--	.03	.03
Poverty in '79	--	-.03	-.03
Claim a religion '79	--	-.05	-.05
Expect to marry '79	--	-.00	-.00
Self-esteem in '79	--	-.05	-.05
Teen 1 st birth	--	.04	.04
Education in '85			
Less than HS	--	-.01	-.01
High school	--	--	--
More than HS	--	-.04	-.04
<i>Percent of childhood in poverty</i>	--	--	.00
Constant	.57***	.85***	.86***
F	3.23*	4.01***	3.77***
R ²	.01	.04	.04
N	1,712	1,712	1,712

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on depression summarized.

Table 20 presents models predicting the effects of latent class membership on adolescent delinquency. Model 1 reveals that adolescents in classes 1, 2, and 5 (born married, divorce; long-term single mothers; and gain a stepfather) are significantly more likely to participate in delinquent activities compared to those in class 3 (continuously married). There are no significant differences between the other classes on delinquency, however. The main difference in delinquency is between adolescents who grew up in continuously married families compared to most of the other family structures (all except the cohabiting parents who marry or break up group). Adding controls in Model 2 does not change the significant differences between the latent class trajectories, nor does adding percentage of childhood in poverty in Model 3.

Table 20. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership on Delinquency.*

	Model 1: Classes	Model 2: Classes and Controls	Model 3: Classes, Controls, and Poverty
Class 1: Married family, divorce or separate.	.09***	.08***	.08***
Class 2: Long-term single mothers.	.08***	.06**	.05**
Class 3: Married continuously.	--	--	--
Class 4: Cohabiting parents, marry or break up.	.05	.03	.02
Class 5: Gain a stepfather.	.06**	.05*	.04*
Class Differences ^a	Class 1>Class 3; Class 2>Class3; Class 5>Class 3	Class 1>Class 3; Class 2>Class3; Class 5>Class 3	Class 1>Class 3; Class 2>Class3; Class 5>Class 3
<i>Child Characteristics</i>			
Male	--	.04***	.04***
Age	--	-.00	-.00
<i>Mother Characteristics</i>			
Race			
Black	--	.02	.02
Hispanic	--	.04**	.04*
Non-Black, non-Hispanic	--	--	--
Non-intact family	--	.02	.02
Poverty in '79	--	-.00	-.00
Claim a religion '79	--	.02	.02
Expect to marry '79	--	.04	.04
Self-esteem in '79	--	.01	.01
Teen 1 st birth	--	-.01	-.01
Education in '85			
Less than HS	--	.01	.01
High school	--	--	--
More than HS	--	-.03*	-.03*
<i>Percent of childhood in poverty</i>	--	--	.00
Constant	.16***	.11	.11
F	11.06***	4.98***	4.71***
R ²	.03	.06	.06
N	1,250	1,250	1,250

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on delinquency summarized.

In Table 21, Model 1, the adolescents in class 1 (born married and subsequently divorce or separate) reported significantly lower levels of closeness to their mothers than those in continuously married families or long-term single mother families. These differences in mother-child closeness persisted after adding the control variables in Model 2. In Model 3, the percentage of childhood spent in poverty did not predict mother-child closeness, but after adding this variable the significant difference between class 1 (born married and subsequently divorce or separate) and class 2 (long-term single mothers) disappears. The difference between class 1 (born married and subsequently divorce or separate) and class 3 (married continuously) persists.

The results in Table 21 suggest that there is only one type of transition that is detrimental for mother-child closeness: the breakup of the parental marriage. Class 1, the group who experienced a parental breakup, was the only group to have significantly lower closeness to their mothers than other groups. About half of the adolescents in class 5 experienced a parental divorce, and the coefficient for class 5 also trended in the negative direction.

Overall, Tables 19-21 suggest that years spent in poverty during childhood is not a mechanism linking trajectories of children's living arrangements and outcomes in adolescence. Tables 19-21 presented the effects of experiencing the latent class trajectories on adolescent outcomes. The next set of tables, Tables 22-24, present the effects of the number of family structure transitions experienced across childhood on the same three outcomes: depression, delinquency, and mother-child closeness. The effects of the number of transitions are tested with and without controls, and then the number of transitions and the latent class trajectories are combined in models with and without controls in order to shed light on how the family structure trajectories and the number of transitions predict outcomes together.

Table 21. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership with and without controls on Mother-Child Closeness.*

	Model 1: Classes	Model 2: Classes and Controls	Model 3: Classes, Controls, and Poverty
Class 1: Married family, divorce or separate.	-.17**	-.19**	-.19**
Class 2: Long-term single mothers.	.06	-.01	-.04
Class 3: Married continuously.	--	--	--
Class 4: Cohabiting parents, marry or break up.	.05	-.01	-.04
Class 5: Gain a stepfather.	-.04	-.08	-.09
Class Differences ^a	Class 1<Class3; Class 1<Class2	Class 1<Class 3; Class1<Class2	Class 1<Class 3
<i>Child Characteristics</i>			
Male	--	.11**	.11**
Age	--	-.01	-.01
<i>Mother Characteristics</i>			
Race			
Black	--	.05	.04
Hispanic	--	.06	.05
Non-Black, non-Hispanic	--	--	--
Non-intact family	--	.04	.04
Poverty in '79	--	.08	.07
Claim a religion '79	--	.03	.03
Expect to marry '79	--	-.05	-.05
Self-esteem in '79	--	-.05	-.05
Teen 1 st birth	--	-.01	-.02
Education in '85			
Less than HS	--	-.03	-.05
High school	--	--	--
More than HS	--	-.07	-.07
<i>Percent of childhood in poverty</i>			
Constant	3.32***	3.65***	3.62***
F	2.87*	1.95*	1.90*
R ²	.01	.02	.02
N	1,708	1,708	1,708

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on mother-child closeness summarized.

Table 22. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership and Number of Family Structure Transitions with and without controls on Depression.*

	Model 1: Number of Transitions	Model 2: Transitions and Controls	Model 3: Classes and Number of Transitions	Model 4: Classes and Transitions and Controls
Class 1: Married family, divorce or separate.	--	--	-.02	-.04
Class 2: Long-term single mothers.	--	--	-.01	-.02
Class 3: Married continuously.	--	--	--	--
Class 4: Cohabiting parents, marry or break up.	--	--	-.01	-.05
Class 5: Gain a stepfather.	--	--	-.11*	-.14*
Number of Transitions	.04***	.04***	.05***	.05***
Class Differences ^a	--	--	Class2>Class5; Class3>Class5	Class1>Class5; Class2>Class5; Class3>Class5
<i>Child Characteristics</i>				
Male	--	-.15***		-.15***
Age	--	-.00		-.00
<i>Mother Characteristics</i>				
Race				
Black	--	-.01	--	.00
Hispanic	--	-.01	--	-.01
Non-Black, non- Hispanic	--	--	--	--
Non-intact family	--	.02	--	.02
Poverty in '79	--	-.02	--	-.03
Claim a religion '79	--	-.05	--	-.06
Expect to marry '79	--	-.01	--	-.02
Self-esteem in '79	--	-.05	--	-.05
Teen 1 st birth	--	.04	--	.04
Education in '85				
Less than HS	--	-.01	--	-.01
High school	--	--	--	--
More than HS	--	-.04	--	-.04
<i>Percent childhood poverty</i>	--	.00	--	.00
Constant	.56***	.91***	.56***	.94***
F	33.85***	5.99***	7.75***	5.07***
R ²	.02	.05	.02	.05
N	1,712	1,712	1,712	1,712

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on depression summarized.

Model 1 in Table 22 shows the association between number of family structure transitions and depression. Number of family structure transitions is a statistically significant predictor of depression ($p < .001$). Adding the control variables in Model 2 does not decrease the significant effect of number of transitions.

In Model 3, both children's long-term family structure classes and number of transitions are included. Number of family structure transitions remains statistically significant. Class 1 is no longer significantly different from class 3 (as it was in Table 19), suggesting that instability helps explain why growing up in that trajectory was associated with higher levels of depression compared to growing up with stably married parents. However, after controlling for instability, class 5 (gain a stepfather) is now significantly different from some of the other groups. The same results are evident in Model 4, which includes the control variables. When controlling for number of transitions, adolescents in the group that gained a stepfather have lower levels of depression than those who grew up with continuously married parents, divorced parents, and long-term single mothers. This suggests that family instability as measured by number of transitions is a key predictor of adolescent depression, but once the greater instability of children in the stepfather group is taken into account, experiencing the trajectory that includes living with a stepfather actually lowers the likelihood of experiencing depression as an adolescent. This finding makes theoretical sense when comparing the stepfather class with classes 1 and 2, where the alternative is likely a single mother, because the addition of a stepfather likely could translate into greater monitoring and emotional and financial support for the adolescent. However, it is surprising when comparing the stepfather group to the married biological parents class, as the stepfather group has lower levels of depression, on average, than that group (only after controls are added).

Table 23 presents the association between number of family structure transitions, latent class trajectories, and delinquency. In Model 1, the number of transitions is a significant predictor of delinquency, and remains significant when controls are added in Model 2. In the combined analysis of number of transitions and latent class trajectories in Model 3, the number of transitions remains a significant predictor. Adolescents in class 5 (gain a stepfather) are no longer more likely to be delinquent compared to those with continuously married parents after controlling for the number of transitions. The differences between continuously married parents and the other two classes (married parents who divorce or separate and long-term single mothers) remain, with those two groups reporting more delinquency than the continuously married group. In addition, there is a significant difference between classes 2 and 5 ($p < .05$). Adolescents who grow up with a long-term single mother report significantly more delinquency than those who gain a stepfather when controlling for number of transitions. The same difference was found for depression in Table 22. However, when controls were added in Model 4, the only remaining differences were between Classes 1 and 3 and 1 and 5. Adolescents in class 1 (married parents who divorce or separate) had more delinquency than those in class 3 (continuously married parents) or class 5 (gain a stepfather). Those who grew up with a long-term single mother no longer have more delinquency than those who grew up with continuously married parents when the classes, instability, and all controls are included.

As a precaution against multicollinearity, correlations were run between all of the predictor variables in the preceding models. Bivariate correlations between all variables were below .5 with the exception of the relationship between Class 5 (gain a stepfather) and number of transitions, where $r = .52$, and mother's expectation of marriage and adolescent's age ($r = .53$).

Table 23. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership and Number of Family Structure Transitions with and without controls on Delinquency.*

	Model 1: Number of Transitions	Model 2: Transitions and Controls	Model 3: Classes and Transitions	Model 4: Classes and Transitions and Controls
Class 1: Married family, divorce or separate.	--	--	.05*	.05*
Class 2: Long-term single mothers.	--	--	.06**	.03
Class 3: Married continuously.	--	--	--	--
Class 4: Cohabiting parents, marry or break up.	--	--	.03	-.00
Class 5: Gain a stepfather.	--	--	.01	-.01
Number of Transitions	.02***	.02***	.02**	.02**
Class Differences ^a	--	--	Class2>Class5; Class1>Class3; Class2>Class3	Class1>Class3; Class1>Class5
<i>Child Characteristics</i>				
Male	--	.04***		.04***
Age	--	-.00		-.00
<i>Mother Characteristics</i>				
Race				
Black	--	.03	--	.02
Hispanic	--	.04*	--	.04*
Non-Black, non- Hispanic	--	--	--	--
Non-intact family	--	.03	--	.02
Poverty in '79	--	-.00	--	-.01
Claim a religion '79	--	.02	--	.02
Expect to marry '79	--	.04	--	.04
Self-esteem in '79	--	.01	--	.01
Teen 1 st birth	--	-.01	--	-.01
Education in '85				
Less than HS	--	.00	--	.01
High school	--	--	--	--
More than HS	--	-.03*	--	-.03*
<i>Percent childhood poverty</i>	--	.00	--	.00
Constant	.17***	.13	.16***	.13
F	36.69***	5.70***	10.46***	4.90***
R ²	.03	.06	.04	.07
N	1,250	1,250	1,250	1,250

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on delinquency summarized.

Table 24. *Unstandardized OLS Regression Coefficients Predicting the Effects of Latent Class Membership and Number of Family Structure Transitions with and without controls on Mother-Child Closeness.*

	Model 1: Number of Transitions	Model 2: Transitions and Controls	Model 3: Classes and Transitions	Model 4: Classes and Transitions and Controls
Class 1: Married family, divorce or separate.	--	--	-.20**	-.22**
Class 2: Long-term single mothers.	--	--	.05	-.06
Class 3: Married continuously.	--	--	--	--
Class 4: Cohabiting parents, marry or break up.	--	--	.03	-.06
Class 5: Gain a stepfather.	--	--	-.08	-.14
Number of Transitions	-.01	-.02	.01	.01
Class Differences ^a	--	--	Class1<Class2; Class1<Class4; Class1<Class3	Class1<Class3;
<i>Child Characteristics</i>				
Male	--	.12**		.11**
Age	--	-.01		-.01
<i>Mother Characteristics</i>				
Race				
Black	--	.04	--	.05
Hispanic	--	.05	--	.05
Non-Black, non- Hispanic	--	--	--	--
Non-intact family	--	.03	--	.03
Poverty in '79	--	.07	--	.07
Claim a religion '79	--	.03	--	.03
Expect to marry '79	--	-.04	--	-.05
Self-esteem in '79	--	-.05	--	-.05
Teen 1 st birth	--	-.03	--	-.01
Education in '85				
Less than HS	--	-.04	--	-.05
High school	--	--	--	--
More than HS	--	-.07	--	-.06
Percent childhood poverty	--	.00	--	.00
Constant	3.31***	3.60***	3.32***	3.64***
F	.30	1.74*	2.37*	1.83*
R ²	0.00	.01	.01	.02
N	1,708	1,708	1,708	1,708

* $p < .05$. ** $p < .01$. *** $p < .001$. ^aSignificant differences at $p < .05$ between all classes on mother-child closeness summarized.

Table 24 presents models predicting the effects of number of transitions and latent class membership on mother-child closeness as reported by the adolescent. The bivariate model testing the association between number of transitions and mother-child closeness was not significant, indicating that the number of family structure transitions that children experience does not appear to affect how close they feel to their mothers. In model 3, which includes both number of transitions and latent class trajectories, the adolescents who grew up in trajectory 1 again (as in Table 21) had significantly lower levels of closeness to their mothers than those in continuously married families or long-term single mother families and also had lower levels of closeness than those in class 4 (cohabiting parents who marry or break up). In Model 4, which included controls, adolescents in trajectory 1 (married parents who break up) had lower levels of closeness to their mothers, on average, than adolescents in continuously married parents. Other significant differences lost significance after controls were added in Model 4 in Table 24, which was also the case in Model 3 in Table 21, where the only significant difference in mother-child closeness after all controls were included was also between classes 1 and 3.

Overall, the previous six tables demonstrate that both the types of trajectories children experience and the number of transitions they experience appear to predict certain outcomes to different extents. It is clear that the number of transitions that children experience predicts both depression and delinquency in adolescence, regardless of what controls and specific family structure trajectories are included in the models. It is reasonable to conclude that cumulative family structure instability is an important predictor of adolescent well-being and should be included in future research whenever possible.

Some specific conclusions about outcome differences between specific latent class trajectories can also be reached. First, adolescents who were born into marriage and experienced

parental divorce (class 1) are clearly doing worse than adolescents whose parents were continuously married. The difference in delinquency between classes 1 and 3 (married continuously) persisted even after all the variable for cumulative instability and all controls were added to the model. Divorce also predicted depression, even when controls were included, until the variable for instability was included. Finally, class 1 was also the only trajectory (or family structure variable of any kind, for that matter) that predicted mother-child closeness. This finding reiterates prior research that has demonstrated that divorce is clearly a problematic experience for children's later outcomes, including depression, delinquency, and mother-child closeness.

The second overall conclusion is that adolescents who grew up with a long-term single mother have worse outcomes compared to adolescents whose parents were continuously married. The control variables explain the increased depression among those who grew up with a single-mother, but the significant effect of growing up with a single mother only disappears in the final model for delinquency that includes instability and all controls. In the models predicting delinquency that included controls *or* instability, growing up with a single mother remained statistically significant; it was only when all of these variables were combined into one model that growing up in this trajectory no longer predicted delinquency.

The third and perhaps most surprising conclusion is the finding that once the greater instability experienced by the adolescents who gained a stepfather was taken into account, adolescents in this trajectory had less depression and delinquency than those in some of the other trajectories. Again, it is clear that instability is not a positive experience for children, but perhaps when a stably married stepfather is added to a family without a father figure (such as a long-term single mother family, as in trajectory 2, or a divorced mother family, as in trajectory

1), the extra supervision, economic support, emotional support, and other positive contributions the stepfather makes to the family help improve children's long-term outcomes. One thing to keep in mind is that "better" stepfathers may also be more likely to stay in the family. This finding warrants further investigation in the future.

Other Family Structure Measures and Adolescent Outcomes

Part of the second aim in this project was to attempt to determine what aspects of long-term family structure experiences predict adolescent outcomes. In the interest of comparison between different types of measures that tap children's long-term family structure experiences, the next set of analyses examines the association between family structure variables other than trajectories and number of transitions and adolescent outcomes. In all of these analyses, the same control variables from Tables 19-24 are included. The family structure variables tested are adolescent's family structure at age 14, having ever experienced certain types of family structures, percentage of childhood spent in certain types of family structures, and number of mother's co-residential married and cohabiting partners. In all of these analyses, as in previous analyses, those who were missing on the dependent variable due to not being asked the question (because of age restrictions on the question) or nonresponse were excluded.

The first analysis, presented in Table 25, tests the association between adolescent's family structure at age 14 and outcomes in 2006. Those who experienced a family transition (and therefore more than one family structure, $n=82$) at age 14 were excluded from this analysis in order to ensure mutually exclusive family structure categories.

Results in Table 25 reveal that the only significant difference between family structures at age 14 in predicting depression, delinquency, and mother-child closeness is between those who were living with married biological parents and those who were living with a single mother.

Compared to adolescents who lived with married biological parents, adolescents who lived with a single mother had higher levels of depression and delinquency and lower mother-child closeness. Children living with single mothers at age 14 would largely be part of latent classes 1 and 2 (married family that breaks up and long-term single mothers), so these results are rather consistent with the earlier analyses predicting outcomes in this chapter.

There were no other significant differences between different family structures. Living with a stepfather was no better or worse than living with any other family structure, for example. However, this may be due to the fact that the other family structures had very small sample sizes. Of the 1,633 adolescents included in the regression predicting depression, for example, 59.2% were living with married biological parents and 27.5% were living with a single mother, while only 1.4% of the sample was living with cohabiting biological parents, 2.8% of the sample was living with cohabiting stepfathers, and 9.1% of the sample was living with a married stepfather at age 14.

The major contribution of the analysis in Table 25 is that it reveals the tremendous diversity in living arrangements (and possibly in outcomes) that is missed when static measures of family structure are employed in analyses. The previous analyses in this chapter and the next set of analyses demonstrate that the family structure-based predictors of outcomes are much more nuanced than what can be gleaned from Table 25.

Table 25. *Unstandardized OLS Regression Coefficients Predicting the Effects of Family Structure at Age 14 on Depression, Delinquency, and Mother-Child Closeness in 2006.*

	Depression	Delinquency	Mother-Child Closeness
<i>Family structure at age 14</i>			
Married biological parents	--	--	--
Cohabiting biological parents	.16	-.02	-.18
Cohabiting stepfather	.12	.05	-.22
Married stepfather	.07	.03	-.01
Single mother	.07*	.07***	-.12*
Family Structure Differences ^a	single mother > married biological parents	single mother > married biological parents	single mother < married biological parents
Constant	.86***	.11	3.67***
F	3.77***	4.91***	1.78*
R ²	.04	.06	.02
N	1,633	1,201	1,629

* $p < .05$. ** $p < .01$. *** $p < .001$. *Note:* Controls for child gender, child age, mother's race, mother had a non-intact family at age 14, poverty, religion, expectations of marriage, and self-esteem in 1979, whether mother's first birth was as a teenager, and mother's education before the birth of the focal child are included. Adolescents who experienced a transition at age 14 ($n=82$) were excluded in order to ensure mutually exclusive family structure categories. ^aSignificant differences at $p < .05$ between other family structure variables summarized.

In order to further investigate what types of family structure experiences are important for adolescent outcomes, the next set of analyses, presented in Table 26, tests whether *ever* having experienced various family structure transitions has an impact on adolescent outcomes. Correlations were tested between the five types of family transitions and the largest correlation, between ever experiencing mother's cohabitation beginning and ever experiencing mother's cohabitation dissolution ($r=.56$), was not indicative of problems with multicollinearity. Table 9 in Chapter 4 shows the percentage of adolescents who have ever experienced a mother's marriage, divorce, cohabitation beginning, cohabitation dissolution, or partner's death.

Table 26. *Unstandardized OLS Regression Coefficients Predicting the Effects of Ever Experiencing Various Family Structures on Depression, Delinquency, and Mother-Child Closeness in 2006.*

	Depression	Delinquency	Mother-Child Closeness
<i>Ever experienced</i>			
Mother's marriage (wedding)	-.02	-.00	-.01
Mother's divorce	.11**	.04*	-.12*
Mother's cohabitation beginning	.03	.01	.10
Mother's cohabitation dissolution	.12*	.06*	-.10
Mother's partner's death	.01	.09*	-.15
Constant	.90***	.12	3.64***
F	5.13***	4.71***	1.74*
R ²	.05	.06	.02
N	1,712	1,250	1,708

* $p < .05$. ** $p < .01$. *** $p < .001$. *Note:* Controls for child gender, child age, mother's race, mother had a non-intact family at age 14, poverty, religion, expectations of marriage, and self-esteem in 1979, whether mother's first birth was as a teenager, and mother's education before the birth of the focal child are included.

According to Table 26, ever experiencing a mother's divorce is associated with increased depression and delinquency, on average, and lower levels of mother-child closeness. Likewise, ever experiencing a mother's cohabitation dissolution (cohabitation breakup; cohabitations that transition into marriages are not included) appears to increase depression and delinquency, on average. There do not appear to be significant effects of experiencing a mother's marriage or onset of cohabitation on these outcomes. Ever experiencing the death of a father or stepfather is associated with increased levels of delinquency but no change in depression or mother-child closeness.

The statistically significant predictors of adolescent adjustment in Table 26 appear to be union dissolutions rather than union formations. Experiencing mother's divorce has detrimental impacts on all three measures of well-being, and is the only type of transition that predicts mother-child closeness. Cohabitation dissolution increases average scores on depression and

delinquency. These results suggest that having a mother's spouse or partner leave the family may be detrimental for children's well-being, while having a mother's spouse or partner join the family does not appear to be associated with worse outcomes, on average. This analysis offers a clue as to what it is about family structure transitions that matters for children's well-being. Perhaps the losses of income and supervision and other changes associated with a household member moving out are what make instability problematic. These results suggest that, in contrast, the adjustment to the addition of a mother's spouse or partner and their new role in the family does not have long-term implications for outcomes if that stepfather remains in the family.

The next analysis examines how the amount of time spent in various family structures is associated with adolescent outcomes. The mean percentage of childhood spent in a single-mother home, married home, and cohabiting home (married and cohabiting homes may include both biological and nonbiological father figures) is presented in Table 11 in Chapter 4. Below, Table 27 shows the associations between the percentage of childhood spent in these family structures and depression, delinquency, and mother-child closeness. Because the variables representing percentage of childhood spent in married, cohabiting, and single homes were highly correlated (r between married and single = $-.91$), outcomes were regressed on each variable in separate models.

Table 27. *Unstandardized OLS Regression Coefficients Predicting the Effects of Percentage of Childhood Spent in Certain Family Structures on Adolescent Depression, Delinquency, and Mother-Child Closeness.*

Percentage of Childhood	Depression			Delinquency			Mother-Child Closeness		
Single-mother home	.04	--	--	.08***	--	--	-.10	--	--
Married home	--	-.08*	--	--	-.07***	--	--	.08	--
Cohabiting home	--	--	.21**	--	--	.03	--	--	-.00
Constant	.87***	.93***	.88***	.09	.16	.12	3.69***	3.61***	3.65***
F	4.40***	4.71***	4.90***	5.35***	5.35***	4.20***	1.85*	1.82*	1.68
R ²	.03	.04	.04	.05	.05	.04	.01	.01	.01
N	1,712	1,712	1,712	1,250	1,250	1,250	1,708	1,708	1,708

* $p < .05$. ** $p < .01$. *** $p < .001$. *Note:* Controls for child gender, child age, mother's race, mother had a non-intact family at age 14, poverty, religion, expectations of marriage, and self-esteem in 1979, whether mother's first birth was as a teenager, and mother's education before the birth of the focal child are included.

Percentage of childhood spent living with a single-mother was associated with higher levels of delinquency but no significant change in depression or closeness to mother. Percentage of childhood spent living in a married home was associated with lower levels of both depression and delinquency and no change in closeness to mother. The ways in which percentage of childhood spent in single-mother and married homes predict delinquency fit with monitoring theory, which posits that when two parental figures are in the home, children are better supervised and less likely to be delinquent.

Percentage of childhood spent living in a cohabiting home was associated with higher levels of depression and no difference in the other two outcomes. Of note is the fact that none of these variables predict mother-child closeness.

Overall, these results suggest that the total percentage of childhood spent in particular *types* of families has an impact on children's outcomes in adolescence. Time spent in a married

household improves well-being, on average, on two of the measures, while time spent in both single-mother and cohabiting households is associated with lower well-being on one measure and no change on the other two measures. However, this way of studying long-term family living arrangements does not seem to be an improvement on the earlier analyses, as it is much less specific.

Turning to mother's partners, the next analysis explores how the number of live-in partners mothers have over the course of the child's life might be associated with adolescent outcomes. Table 12 in Chapter 4 presents the mean number of live-in marriage and cohabiting partners in the full sample and by family structure at birth. In Table 28 below, the associations between adolescent outcomes and the number of live-in marriage and cohabiting partners ($r=.02$) as well as the total number of partners overall reported by mothers during the child's life are presented.

Table 28. *Unstandardized OLS Regression Coefficients Predicting the Effects of the Number of Mother's Live-in Partners on Depression, Delinquency, and Mother-Child Closeness in 2006.*

	Depression		Delinquency		Mother-Child Closeness	
<i>Mother's Coresidential Partners</i>						
Mother's marriage partners	.03	--	.01	--	.00	--
Mother's cohabiting partners	.09***	--	.03**	--	-.02	--
Mother's total partners	--	.09***	--	.03**	--	-.02
Constant	.86***	.84***	.12	.11	3.69***	3.69***
F	5.82***	5.93***	4.41***	4.84***	1.02	1.13
R ²	.05	.04	.05	.05	.01	.01
N	1,712	1,712	1,250	1,250	1,708	1,708

* $p<.05$. ** $p<.01$. *** $p<.001$. *Note:* Controls for child gender, child age, mother's race, mother had a non-intact family at age 14, poverty, religion, expectations of marriage, and self-esteem in 1979, whether mother's first birth was as a teenager, and mother's education before the birth of the focal child are included.

The results in Table 28 indicate that the total number of mother's partners is associated with higher levels of depression and delinquency. However, for both depression and delinquency, basically the total effect of the number of mother's partners is explained by the number of cohabiting partners. Number of marriage partners the child has lived with is not a significant predictor of outcomes, which is consistent with the finding that the gain a stepfather trajectory was not problematic relative to the others in earlier analyses. The sizes and significance of the coefficients are nearly identical when the effects of the number of marriage and cohabiting partners are examined separately (analyses not shown). None of the measures of how many partners the mother has had predict mother-child closeness.

In order to explore whether mothers who had cohabiting partners simply had more partners, and thereby more transitions, additional analyses (not shown) examining the number of marital and cohabiting partners for women who ever married and ever cohabited were conducted. Children whose mothers ever married experienced 1.5 marriage partners, .8 cohabiting partners, and 3.3 transitions, on average, while children of women who ever began a cohabitation experienced 1.1 marriage partners, 1.4 cohabiting partners, and 3.7 transitions, on average. Based on these numbers, it is possible that the effect of cohabiting partners in Table 28 may be partly due to the fact that women who have cohabiting partners have more transitions.

Chapter Summary

This chapter explored whether and how children's long-term family structure trajectories, measured by a variety of variables, impacted adolescent outcomes. Depression, delinquency, and mother-child closeness were the indicators of adolescent adjustment that were examined. First, the number of family structure transitions children experienced were significant predictors of depression and delinquency in adolescence. Furthermore, when number of transitions and

family structure trajectories as determined by the latent class analysis were examined in concert, the coefficient for the number of transitions remained stable and significant on those outcomes, and coefficients for some of the latent class trajectories were also significant predictors of well-being, suggesting that there are independent effects of instability and the specific type of trajectories children experience.

The most problematic trajectories in terms of depression and delinquency relative to the others seemed to be classes 1 and 2 (married family that breaks up and long-term single mothers). The effect of growing up with a long-term single mother disappeared in the models with all controls also included, but the effect of divorce (class 1) continued to predict delinquency even when instability and all of the controls were included. Growing up in class 1 (but not the experience of instability) was also the only trajectory associated with lower mother-child closeness.

Percentage of childhood spent in poverty was not found to be a mechanism linking the latent class trajectories with outcomes. There were significant differences in outcomes between the latent class trajectories of family structure as well as all of the other measures of family structure experiences over the course of childhood explored, including family structure at age 14, having ever experienced particular family structures, percentage of childhood in certain family forms, and number of married and cohabiting partners. Clearly, there are several different aspects of long-term family structure trajectories that matter for adolescent adjustment, including current family structure, especially living with a single mother, having ever experienced divorce or cohabitation dissolution, spending a substantial percentage of childhood in a married, cohabiting, or single-parent home, and the total number of mother's coresidential partners, particularly cohabiting partners.

There are some general conclusions about what matters for adolescent well-being that can be drawn regardless of the particular measure of family structure that is used. First, divorce seems to stand out in this study as a particularly negative experience. Family trajectory 1, which was composed of children who were born to married biological parents who broke up, was one of the most problematic trajectories, and the only one that significantly lowered mother-child closeness. In analyses examining the effects of ever experiencing particular transitions, mother's divorce was again the only transition that negatively affected all three outcomes in the study: depression, delinquency, and mother-child closeness. Furthermore, in terms of mother-child closeness, all of the analyses seem to point to divorce as the only significant predictor of lower mother-child closeness. Mother's cohabitation breakup was associated with increased depression and delinquency, indicating that union dissolutions may be generally more problematic than union formations, as neither mother's marriage nor onset of cohabitation were predictive of adolescent outcomes.

Experiencing more family structure transitions is associated with higher levels of depression and delinquency regardless of what other variables are included in the analysis. This is consistent with stress theory, as experiencing changes, and especially multiple changes, creates stress for children which can result in poorer outcomes. However, once family instability is accounted for, having a married stepfather does not appear to be problematic for adolescent adjustment, and is actually associated with positive outcomes in terms of depression and delinquency relative to some of the other trajectories. The results in this chapter suggest that perhaps instability is problematic but when controlling for instability, the extra supervision and support a stepfather can provide is helpful to children.

In terms of understanding the effects of family structure over time on adolescent outcomes, certainly looking at family structure at one point in time, in this case at age 14, seems rather deficient. Looking at family structure at a single point in time both greatly simplifies children's actual family experiences and renders the researcher unable to determine what specific experiences (instability, for example) may be driving outcomes. In Table 25, the only significant difference between groups is between children living with single mothers and children living with married biological parents. But why are those single mothers single? Are they stable single mothers or are they temporarily single because they are in between a series of family structure transitions (the difference between trajectories 1, 2, and 3, perhaps). The latent class analysis trajectories and the number of family structure transitions appear to be useful variables for understanding what it is about family structure (including divorce and general instability) that matters for adolescent outcomes. Using the particular family structure transitions experienced to predict outcomes also sheds light on what might matter for child well-being, in this case that partners moving out is associated with negative outcomes. Looking at the percentage of time spent in various family structures and the number of partners children have lived with is less informative, but still appears to be useful when used together with other measures to understand what may be driving family structure effects. The implications of these findings will be further discussed in Chapter 7.

Chapter 7

Discussion

This study described the tremendous heterogeneity in family structure trajectories that American children experience today and is the first to exhaustively document the family structure experiences of children across the entirety of their childhood. Using a cohort from the National Longitudinal Survey of Youth Children and Young Adults sample, children's long-term living arrangements were documented and described in myriad ways. In the descriptive part of the study, the childhood living arrangement experiences of the sample were captured by analyzing children's family structure at birth, subsequent family instability, incidence of experiencing particular types of family structure transitions, percentage of childhood spent in different family structures, and the number of mother's live-in spouses and partners, in addition to documenting the actual family structure trajectories that children experience. Latent class analysis was then utilized to understand the main trajectories of living arrangements children commonly experience, and characteristics that increase the likelihood of experiencing particular trajectories were determined. Then the effects of growing up in particular family structure trajectories and experiencing other family structure characteristics on three adolescent outcomes were analyzed.

The key research questions in this project were grouped into two aims. The first aim was descriptive in nature and the goal was to document children's family structures over the course of childhood in their entirety. The first descriptive research question was: on average, how many changes in family structure do American children experience from birth through adolescence? In this sample, the mean number of family structure transitions was about 1 transition. However, the number of transitions the children in this sample experienced ranged widely from no

transitions for about 60% of the sample to 7, 8, and 9 transitions for a handful of children. About 40% of the sample experienced at least one family structure transition, which means they experienced two different family structures. The 5% of children who experienced four or more instances of partners moving in and out of the household experienced at least five distinct family structures over the course of childhood.

Today, there is no “normal” childhood family structure. The living arrangements children experience vary widely, with most children still growing up in stable households of different types, mostly with married biological parents or a single mother, and a substantial proportion of children experiencing multiple family structure transitions.

The second descriptive research question asked what percentage of children experienced specific kinds of family structure transitions. About 21% of the sample ever experienced their mother’s wedding, about 24% ever experienced their mother’s divorce, about 18% experienced the start of their mother’s cohabitation, about 10% experienced a mother’s cohabitation dissolution, and about 2% ever experienced the death of their mother’s spouse or partner. The distribution of these transitions is not evenly divided across children, however; many of the same children are experiencing two or more of these transitions.

A striking finding in this study was the degree to which family structure at birth seemed to be predictive of children’s future family structures. Perhaps most illustrative of this point is the finding that children born to married biological parents will spend about 85% of their childhood, on average, in a married home, while children born to single mothers will spend about 75% of their childhood in a single-mother home, on average. Children born to cohabiting parents have childhoods that are split about evenly between cohabiting, married, and single-

mother families, on average. Number of family structure transitions and marital and cohabiting partners children experience also vary by family structure at birth.

The third descriptive question was how many different trajectories of living arrangements exist, and what are the most common ones? In this sample of 1,870 adolescents, there were 187 different trajectories. The most common ones are described in Table 13 and are generally the less complex trajectories, such as living with stable married parents or a stable single mother or married parents who break up and do not remarry. However, the most common 22 trajectories only capture the family structure experiences of 83% of the sample. There are 322 children, or 17% of the sample, whose family structure experiences do not neatly fit into the most common trajectories. As children experience more complex trajectories with more family structure transitions, the odds that other children experience the exact same sequence of family structures decreases dramatically.

Because there are 187 distinct trajectories of family structures that children in the sample experienced, latent class analysis was utilized in order to understand the underlying pathways of children's family structure experiences. The fourth research question in this study was: what primary trajectories does latent class analysis reveal? Latent class analysis methods revealed five trajectories of family structure in the sample: born to married biological parents who divorce or separate; grow up with long-term single mothers; grow up with continuously married biological parents; born to cohabiting biological parents who marry or break up; and a group that is distinguished by gaining a stepfather at some point.

The last descriptive question was: what factors are associated with experiencing different family structure trajectories? There were five main characteristics that predicted children's living arrangement trajectories: mother's education, mother's race, mother having a first birth as

a teenager, mother's experiencing a nonintact family, and mother experiencing poverty in youth. Children whose mothers had more education were less likely to experience trajectories not associated with being married compared to those with a high school education, while children whose mothers had less than a high school education were more likely to be long-term single mothers or cohabit.

Children with mothers who had a teen first birth were more likely to be long-term single mothers, cohabit, and gain a stepfather. Children whose mothers were black were less likely to experience trajectories associated with being married (class 1 and 3) than those with white mothers and were most likely to grow up with long-term single mothers.

Mother's experiencing a nonintact family decreased the odds of growing up with continuously married biological parents compared to the other trajectories, indicating that family structure does appear to be transmitted across generations. Mother's experiencing poverty in youth also decreased the odds of growing up with continuously married biological parents relative to the other trajectories.

It is important to fully understand the family contexts in which children are growing up today, and the descriptive part of this study is a step forward in that regard. Most previous studies have looked at family structure at only one point in time, which really only distinguishes between children who grow up in stable married biological parent households or something else, as those who experience other family forms have extremely varied backgrounds that cannot be captured by their living arrangements at a particular point in time. Other studies attempting to better capture cumulative family instability have counted the number of transitions children experience, but do not take into account exactly what types of transitions and family structures they are experiencing, and some only include marital transitions and miss cohabiting

relationships altogether. Given the increasing incidence of cohabitation, family structures involving cohabitation must be included in analyses of children's family backgrounds. Hopefully, future research will continue to expand the repertoire of family structure measures used to capture how American children today are really growing up.

The second aim in this study was to understand what it is about family structure that matters for children's outcomes. Specifically, how does experiencing different long-term trajectories, types of family structures, and transitions predict depression, delinquency, and mother-child closeness? Analyses using the latent class trajectories to predict outcomes suggest that the trajectories which are more likely to be associated with negative outcomes are trajectories 1 and 2 (married parents who break up and long-term single mothers). Trajectory 3 (continuously married parents) is often associated with better outcomes than some of the other classes, and trajectory 4 (cohabiting parents who marry or break up) is generally not a significant predictor of adolescent outcomes (however, it is important to keep in mind that it is the smallest group, at only 4% of the sample). Children in trajectory 5, in which children gain a (usually married) stepfather, have the most family structure transitions, on average. This group has more delinquency than the continuously married parents group in models only examining the effects of trajectories on outcomes, but in analyses controlling for the number of transitions, which will be further discussed in the next section, adolescents who gained a stepfather actually had less depression and delinquency than several of the other groups. This analysis helped answer one of the key questions in the literature: are children from married stepfamilies better off than children from single-mother families once instability is taken into account? The results in this study suggest that they are, but of course if the stepfather group is the most unstable (and it is), it is impossible to "control" for instability in real life. Stable stepfather families, however, should be

studied more carefully, as this study suggests that they may improve children's long-term outcomes significantly compared to single-mother families. Overall, these results suggest that stress theory (e.g. Cox 1978) may help predict outcomes, as the trajectories which likely placed more demands on children to adjust and readjust to difficult family structures and changes were associated with worse outcomes than those that likely did not place such demands upon children.

The last main research question was (how) do other measures of family structure predict outcomes in adolescence? Family instability is clearly an important predictor of future depression and delinquency. Even when the number of transitions children have experienced and the full family structure trajectories are entered in models predicting these outcomes together, both with and without control variables, the number of family structure transitions children have experienced remains a statistically significant predictor of depression and delinquency. The latent class trajectories, particularly classes 1 and 2, sometimes remain significant predictors of outcomes, but the number of transitions always remains a significant predictor of depression and delinquency.

However, cumulative instability does not appear to affect mother-child closeness. Mother-child closeness is generally stable regardless of family structure, with one important exception: divorce. When estimating the effects of family structure on mother-child closeness in several different ways, experiencing divorce stands out as perhaps the only family structure transition or experience to have a negative impact on how close adolescents feel to their mothers. Divorce also appears to be associated with increased depression and delinquency whether measured through trajectories (class 1) or testing the effects of ever experiencing divorce (as in Table 26). There is a long-standing literature that divorce has long-lasting negative effects on outcomes into adulthood (e.g. Amato & Sobolewski, 2001), and in this recent cohort of the

CNLSY, divorce still seems to be making a significant negative impact on several different outcomes.

When studying the number of transitions children experience, one must remember that 1 transition means that children experience two family structures, and that three transitions actually represents children experiencing four different family structures. Children must adjust to a new family with every change in family structure, and for depression and delinquency, this research offers support for the family instability hypothesis – more transitions are associated with lower levels of well-being.

In order to further explore this phenomenon, the specific types of transitions that children experienced were analyzed. Overall, the results suggested that union dissolutions, and particularly divorce, as noted above, may have negative consequences for well-being in adolescence, while union formations (marriage and the onset of cohabitation) are not significant predictors of well-being. The loss of a parental figure may require more adjustment for children, particularly in the areas of delinquency and depression, which increased, on average, when children had ever experienced divorce or cohabitation dissolution. The death of a spouse or partner, which is a completely different kind of loss, was also associated with increased delinquency. These findings are consistent with theories that argue that two parents in the home are better than one because of the increased supervision, income, and emotional support they can provide. The loss of a household member may place particular demands on children that exceed their ability to cope, creating stress which may negatively affect their outcomes. Future research examining how union formations and dissolutions might be very different types of transitions for children is warranted.

For the sake of comparison, children's family structure at age 14 was also used to predict outcomes. There are two main conclusions that can be drawn from that analysis. First, measuring family structure at one point in time, even at age 14, when many family structure transitions that will take place have already occurred, misrepresents children's experiences. For example, in this sample, at age 14, only 1.4% of the sample was living with cohabiting biological parents, only 2.8% of the sample was living with cohabiting stepfathers, and only 9.1% was living with a married stepfather. Nearly 60% were living with married biological parents and 28% were living with a single mother. On average, over 50% percent of children do live with married biological parents, so that statistic is fairly representative. On the other hand, we know that only 117 children (6% of the sample) grew up with stable single mothers, so that group in particular is clearly much more diverse than it appears at one point in time. The second conclusion that can be drawn from this comparative analysis is that it is much harder to understand what aspects of family structure may be driving adolescent outcomes (instability, for example) using a snapshot of family structure at one point in time than when more comprehensive family structure measures are used.

Turning briefly to mechanisms, the percentage of childhood spent in poverty was included in this study as a rough proxy for measuring financial stress that might be associated with certain trajectories. The results of this study do not suggest that percentage of childhood spent in poverty is a mechanism linking family structure trajectories and outcomes, but stress in myriad forms is still likely to be the driving force linking family structure changes and later well-being. Previous work by McLanahan and Osborne (2007) indicates that maternal stress and poorer mothering explain the negative effects of instability on child outcomes. Divorce literature indicates that loss of income is a major source of stress associated with divorce, and the measure

of poverty used in this study does not adequately capture such changes. Future research could better investigate the link between long-term family structure experiences and outcomes by studying economic, residential, and other stressful changes associated with individual family structure transitions.

This study drew on life course theory and the stress perspective, which both suggest that the family trajectories that children experience while growing up are likely to be important later in life. Perhaps the life course tenet most obviously illustrated in this study is the principle of linked lives. Parents' relationship decisions directly determine the family arrangements that their children will experience. In this study, mother's cohabiting and marital relationships dictated children's family structure trajectories over the course of childhood. In addition, the mother's own family structure (intact or nonintact family at age 14) was predictive of whether her children would grow up with continuously married biological parents or other trajectories.

This study was able to work through the two main methodological issues in life course research as noted by Clausen (1986). A longitudinal lens was applied to family structure, and a single cohort of children was used. In addition, this study answered Rindfuss, Swicegood, and Rosenfeld's (1987) call to take a "more careful look at the life course *as it is actually lived*, not as we wish it to be for the sake of research" [emphasis theirs] (Rindfuss et al., 1987, p. 799).

This study finds support for the instability hypothesis, which posits that experiencing family structure transitions is detrimental for children's well-being. Although percentage of time spent in poverty was not a mechanism linking trajectories and outcomes, stress is still most likely the mechanism responsible. Psychological stress associated with adjusting to a new family system (e.g. Hetherington & Clingempeel, 1992) and financial stress (Gottschalk & Danziger, 1993; Hao, 1996) as well as stress associated with residential mobility (Speare & Goldscheider,

1987; South, 1999) likely contribute to the link between instability and outcomes and should be studied in greater depth in future work.

There were several limitations in this study. A major limitation is the fact that the sample only consisted of children who lived continuously with their biological mothers. Family instability is likely underestimated because children who did not live with their mothers throughout childhood and spent time in other family structures (with fathers and their partners, other family members, or non-family arrangements) likely experience greater and more intense instability than the children in this sample. Changing households from mother's home to father's home, for example, is probably a more intense and stressful family structure transition than having a mother's partner move in or out. In addition, some children may move out of the mother's household as a result of the addition of a stepfather whom the child does not like. If such children are leaving their mother's household, it may be driving the positive effect on outcomes of having a stepfather in the household when controlling for instability, because children who do not like their stepfathers have left the household. Maccoby and Mnookin (1992) report that many children of divorce change their residence after initial custody is determined. However, Maccoby and Mnookin also found that the addition of a stepfather to the family is actually one of the major reasons why children of divorce spend more time in their mother's households. They wrote, "A mother's remarriage is associated with moderate shifts toward children spending more time in her household and less time with the father," (Maccoby and Mnookin, 1992, p. 200).

Despite the fact that the sample only includes children who lived continuously with their biological mothers, it is likely to be representative of American children's family structure experiences. According to the U.S. Census Bureau, in 2004, the vast majority of children did

live with their biological mothers. About 3% of children lived in father-only families, and about one and a half percent of children lived in father-stepmother families. In addition, just under 4% of children lived with neither biological parent. Adding these numbers together, about 8.5% of children lived in households that did not include their biological mother in 2004, but only four and a half percent lived with their fathers and not their mothers; the rest lived with neither parent. Although this sample does not include children who left their mother's household, it does capture the experiences of the overwhelming majority of American children, who mostly do live with their biological mothers (Kreider, 2007).

Another limitation is the fact that the data are not perfectly nationally representative. Rather, the CNLSY is representative of the children of the women in the NLSY, which is nationally representative of young Americans in 1979. Still, the data used in this study is an improvement in terms of representativeness upon other commonly used data sets used to study family instability because it follows children over their entire life course and is fairly representative of American children today.

This study is also limited because although all of the analyses predicting outcomes control for adolescent's age, it should be noted that the total number of transitions experienced by children at younger ages underestimates the total number of transitions they will ever experience because they still have several more years of risk for instability not captured in this study.

The fact that the mechanisms linking long-term family experiences with outcomes were not identified is also a limitation in this study. The next step of this study is to disentangle exactly which mechanisms might be linking various trajectories and instability with outcomes. As discussed earlier, psychological, financial, residential, and other changes should be analyzed

with each family structure transition to determine exactly what it might be about family instability that is detrimental for adolescent well-being. However, it is likely that at least some of the stress associated with instability is somewhat intangible and might be not able to be measured in survey data.

The results in this study are derived from analyses using unweighted data. The regression-based analyses were not run with weights due to their disputed usefulness (Winship & Radbill, 1994). Additional descriptive analyses (not shown) were run using the sampling weight of the mother in 1979. The results of the descriptive analyses using sample weights were generally similar to the results of analyses using unweighted data. When the mother's sampling in 1979 weight was used, instability in the sample decreased somewhat. For example, the mean number of transitions in the full sample decreased from 1.1 transitions to .95 transitions. The number of children who experienced zero transitions increased from 59.1% of the sample to 65.1% of the sample, and the number of children who experienced at least one transition decreased slightly. For example, the percentage of children who experienced one transition decreased from 10.1% to 8.4%, and the percentage of children who experienced two transitions decreased from 12.2% to 10.5%. The latent class groups were generally the same, except the long-term single mother group decreased in size (from 17.6% to 11.3% of the sample) and the married continuously group increased in size (from 55.1% to 63.8% of the sample).

Future work should build upon this research by continuing to take complete long-term trajectories of family structure into account. Every transition, including cohabitation, which is often missed or underestimated in extant research (Manning & Bulanda, 2007), should be included in family structure research. This study shows that long-term trajectories such as those determined by latent class analysis are also useful ways of understand children's cumulative

family structure experiences. Future work could also continue to help shed light on the roles of causality versus selection in understanding outcomes associated with family instability. In this study, mother's demographic factors significantly predicted children's selection into different family structure trajectories. The inclusion of these selection factors was a step forward in understanding selection and causality. Future work should include these and other background variables and attempt to clarify whether and how long-term family structure trajectories are causally related.

Replication of the findings in this study using other data sets is desirable, as is expanding the study to include more outcomes, such as academic outcomes. In order to understand what truly matters for offspring well-being, the effects of family background on a wide range of outcomes must be analyzed.

Few recommendations can be made based on this early foray into understanding long-term family trajectories on adolescent outcomes, but one that can be made is that children who experience divorce might benefit from counseling aimed at ensuring that their relationships with their mothers stay close and positive. In general, parents might also be cautioned that multiple family structure transitions are associated with lower levels of children's well-being, so they carefully consider how long they believe their relationship might last when deciding whether to invite a romantic partner into their household.

This study contributed to understanding about the long-term living arrangements of children today and implications for adolescent well-being. Including several different ways of looking at long-term family structure resulted in a more complete picture of how family background might predict offspring well-being.

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