# FATHER ABSENCE AND CHILD WELL-BEING: A CRITICAL REVIEW

Center for Research on Child Wellbeing Working Paper #02-20

**November 2002** 

Wendy Sigle-Rushton Sara McLanahan

## Father Absence and Child Well-being: A Critical Review

Wendy Sigle-Rushton

The ESRC Centre for the Analysis of Social Exclusion

London School of Economics and Political Science

and

Sara McLanahan

Princeton University

Center For Research on Child Wellbeing

October 2002

Acknowledgements: The research was made possible through grants #R01HD36916 and #R01HD19375 from NICHD, and grant #P30HD32030 from NIH. Both authors received support from the MacArthur Network on The Family and The Economy and The Center for Research on Child Well-being at Princeton University. Sara McLanahan worked on this paper while she was a fellow at the Center for Advanced Study in the Behavioral Sciences with support from the William and Flora Hewlett Foundation.

#### Introduction

Patterns of family formation have changed dramatically in the US over the last several decades. Cohabitation has replaced marriage as the preferred first union of young adults; pre-marital sex and non-marital childbearing have become increasingly acceptable (and commonplace); and divorce rates have recently plateaued at very high levels. Not only have these changes affected adults, they also have altered the family experiences of children. One of three children in the US today is born outside marriage, and the proportion is twice as high among African American children (Ventura and Bachrach, 2000). Recent estimates suggest that 54 percent of American children will spend some time living apart from one of their parents, usually their father, by the time they are age 15 (Heuveline and Timberlake, 2001; Andersson, 2002).

Although similar changes have occurred in most other developed countries, the United States has highest fraction of children born outside of a union (marriage or cohabitation) and the highest rates of divorce and union dissolution. Thus, relative to its own history, and relative to other industrialized countries, the United States has a larger share of children living apart from their fathers.

These changes might generate less concern if they did not appear to have deleterious consequences for the families involved and for society more generally. .

Single mother families in the United States have high rates of poverty and rely disproportionately on public assistance. And there is good reason to believe that these families may be deprived of important economic resources. Furthermore, a large body of research demonstrates that, while the effects are not large, children who grow up with

only one biological parent are disadvantaged, relative to other children, across a wide range of outcomes in childhood as well as adulthood (Amato and Keith, 1991a, 1991b, Amato 1993; McLanahan 2002). If changes in family formation undermine the ability of future generations to function effectively, the costs of these changes to society could be extremely high.

In this paper, we review what is known about the life chances of children raised in single mother families and the extent to which these children are disadvantaged relative to their peers. Because we are concerned about life chances, most of the outcomes we consider are measured in adolescence and early adulthood. While there is good evidence that father absence has negative consequences for young children, our main concern is whether or not these disadvantages persist into adulthood. We begin the next section by showing the changes in children's family structure between 1960 and 2000. Next, we describe the range of outcomes that have been shown to be associated with father absence, and the evidence that supports the various explanations for these associations. Of particular importance is the issue of whether the positive correlation between father absence and poor outcomes in children can be interpreted as causal. Finally, we discuss what we can and cannot conclude, from both a scientific and policy perspective, about the role of family structure in the development and success of children who grow up in the US today.

### The Prevalence of Single-Parent Families: 1960 to 2000

Single-parent families increased dramatically in the US during the latter part of the 2000<sup>th</sup> century. In 1960, about 9 percent of children under 18 were living with a

single parent; by 2000, the figure was nearly 27 percent. The largest growth in single parenthood occurred between 1970 and 1985 when the proportion almost doubled from 12 percent to 23 percent (Figure 1). After the mid 1980s, the growth of single mother families leveled off at about 25 percent while the growth of single father families continued upward. Note that single father families are still relatively rare and do not contribute much to the growth or prevalence of one-parent families.

When we examine blacks and whites separately, we find that the levels and growth patterns of differ substantially (See Figure 2). In 1960, 22 percent of African American children were living with just one parent as compared to only 7 percent of white children. By 2000, the levels for both groups were much higher – 53 percent for African American children and 22 percent for White children – yet the racial gap had only moderately narrowed. In 1960, African American children were about 3 times as likely as white children to live in a one-parent family, whereas today they are about 2.5 times as likely to do so. In fact, in 2000, the proportion of white children living with only one parent was about equal to the proportion of African American children who were living with one parent in 1960. For white children, the biggest increase in single parenthood occurred during the 1970s, when the proportion grew by a full 75 percent!

For African American children, big increases occurred during both the 1960s and 1970s (45 percent in each decade). After 1985, the increase leveled off for both blacks and whites.

Children may enter a single-parent family through a variety of pathways, and these pathways have changed over time. For example, a child can be born to married parents whose relationship ends in death or divorce. While death was once a major

pathway into single parenthood, it is much less common today (Hernandez, 1993). In 1998, only 3 percent of white children in single mother households were living with a widowed mother, and only 5 percent of African American children were in this status.

Since the 1960s, divorce has been the major pathway into single parenthood for the average child in the United States, accounting for about two thirds of the increase in single mother families between 1960 and 1980 (Hernandez 1993). Divorce is a particularly important pathway for white children, accounting for about 70 percent of the growth in single mother families between 1960 and 1980 (Hernandez 1993). Divorce is a less important, but nonetheless substantial, component of growth for African American families, accounting for about 38 percent of the overall growth between 1960 and 1980.

Non-marital childbearing not formalized by marriage is the second most important component of the growth in single mother families and the most important component among African Americans. The proportion of black children who live in families headed by a never married mother increased from 7 percent in 1960 to 36 percent in 1980 and then to 63 percent in 1998. The increase was much less dramatic for white children, growing from about 2 percent in 1960 to 8 percent in 1980 to 28 percent in 1998 (Hernandez, 1993; US Census Bureau, 1998).

Since 1985, non-marital childbearing has become increasingly important. By the year 2000, about 41 percent of all US children in single-mother family were living with a never married mother (US Census Bureau, 2001). Part of this increase is due to a rise in children born to cohabiting couple who never married (Bumpass and Lu, 2000) so these children are not actually living with a single parent. In the early 1980s about 21 percent of non-marital births to blacks and about 33 percent of non-marital births to whites were

to cohabiting couples (Bumpass and Lu, 2000). By the early 1990s, the percentage for blacks remained stable at 22 percent, while the percentage for whites increased dramatically to 50 percent. Cohabiting unions are less stable than marital unions, however, and many dissolve before the child reaches adulthood (Andersson, 2002; Heuveline and Timerlake, 2001).

Unfortunately, these "snapshots" of children's living arrangements do not provide us with very complete information on the family experiences of children. Some children who are living with married parents when these snapshots are taken will experience a divorce before they reach age 18. And some children who currently live with two parents (a mother and step father) have experienced single motherhood in the past but are not currently counted as in this category. Moreover, if divorced mothers form new partnerships at a faster rate than widowed or never-married mothers, the relative importance of the different pathways, as seen from the snapshots, may be somewhat biased. For this reason, researchers prefer to use life history data to obtain a more complete picture of children's exposure to single parenthood (Andersson, 2002; Heuveline and Timberlake, 2001). The more sophisticated estimates indicate that about 78 percent of children born to cohabiting parents and about 35 percent of children born to married parents will spend some time in a single parent family before the age of 15 (Andersson, 2002). Taken together, these estimates imply that between 50-54 percent of all children will spend part of childhood in a single parent family (Andersson, 2002; Heuveline and Timberlake, 2001). In the United States, the average child can expect to spend about 10.1 years with two biological parents, 3.3 years with (at most) one parent,

and another 1.5 years with a parent and stepparent during the first 15 years of life (Andersson 2002).

# **Intergenerational Effects**

As noted above, changes in family formation would provoke less concern if children were not involved or if it appeared that the changes were neutral. Unfortunately, the empirical evidence suggests otherwise. Children who live with a single mother family fare poorly across a wide range of adolescent and adult outcomes, including educational attainment, economic security, and physical and psychological well-being. Some researchers have suggested that these longer-term consequences may result from pathways established early in adolescence. For example, children raised apart from their biological fathers may drop out of school, leave home, and/or have a child earlier than children raised in two-parent families, which may create disadvantages later in life.

In what follows, we summarize the various outcomes that have been shown to be associated with father absence. We begin by examining academic success and educational attainment. Next, we present differences in psychological adjustment, antisocial behavior and early life transitions. These outcomes, along with educational attainment, may account for persistent differences in adult physical and psychological well-being, relationship quality, and economic well-being, which we consider last. Except where noted, we focus on simple correlations between family structure and child outcomes. Although zero-order effects are typically larger than effects that control for other factors, the variation in control variables across studies makes it difficult to compare outcomes based on more complicated models. Moreover, simple correlations

can easily be interpreted as the probability that a random person, drawn from a given family structure, will experience the outcome of interest.<sup>iv</sup>

#### Academic Success and Educational Attainment

In light of the importance of educational qualifications to employment and earnings in post-industrial economies, the negative relationship between family structure and children's academic success is a major concern. Studies demonstrate quite conclusively that children who live in single-mother families score lower on measures of academic achievement than their counterparts in two parent families (Morrison and Cherlin, 1995; Entwisle and Alexander, 1995; 1996; Lang and Zagorsky, 2001; Aughinbaugh, Pierret and Rothstein, 2001). Controlling for age, gender, and grade level, secondary school students living in single-parent families score about 1/3 of a standard deviation lower mathematics and science tests than children living in two-parent families (Pong, Dronkers, and Hampden-Thompson 2002). Although children in stepparent families score somewhat higher than children in other one-parent families, their scores are still over a quarter of a standard deviation lower than those of children with two biological parents. Similar gaps are found when grades rather than test scores are used to measure academic success. Children who live with two biological parents receive the highest grades (as reported by the parent) and children who live with their mother and an unmarried partner receive the lowest grades (Thompson, Hanson, and McLanahan, 1994). Finally, children who live with both biological parents score highest on academic selfconcept – a scale that measures a student's assessment of his/her own academic performance and potential (Smith, 1990). In sum, children who live apart from their biological fathers perform less well in school, have lower grades, and report lower

academic confidence than children who live with both biological parents. Even if short-lived, these disadvantages may have long-term consequences if they interrupt important educational transitions.

As we might expect, children living with both biological parents remain in school longer and attain higher educational qualifications than children in one-parent families. In particular, children with absent fathers are more likely to drop out of school than children who live with their fathers (Astone and McLanahan, 1991; Painter and Levine, 1999, 2000; Lang and Zagorsky, 2001; Manski, Sandefur, McLanahan, and Powers, 1992; McLanahan and Sandefur, 1994; Bethke and Sanfeur, 1998). For example, one team of researchers found that in a sample of children who completed the eighth grade, high school graduation rates were 90 percent for those in two parent families, 75 for those in divorce-mother families, and 69 percent for those in never-married-mother families (DeLeire and Kalil, 2002). Compared to children living with both biological parents, children in almost every other family structure were less likely to graduate from high school, including children in stepfamilies. The pattern is similar for college attendance. About 71 percent of children who lived with two biological parents went on to college, while only half of children living with only their mothers made this transition. Researchers who have counted the number of years that children spend in different types of families report similar results (Bjorkland, Ginther, and Sundstrom, 2002). Controlling for age and gender, each additional year spent with a single mother reduces a child's educational attainment by half a year, on average. Time spent in stepparent families has a similar effect. All together, a child who spends one third of her childhood with both biological parents, one third of her childhood with a single mother, and the final one third of her childhood in a stepfamily will complete, on average, half a year less of education than a child who spends her entire childhood with both parents.

## Childhood Behavioral and Psychological Problems:

Father absence may generate feelings of abandonment and stress. Thus we should not be surprised to learn that father absence is associated with a higher prevalence of behavioral and psychological problems. Most of the research on family structure and children's psychological well-being examines the impact of divorce, a particularly stressful event in a child's life. Children who experience divorce are more likely to suffer from psychological problems, such as shyness and aggression, than other children (Jekielek, 1998; Cherlin, Furstenberg, Chase-Lansdale, Robins, Morrison and Tietler, 1991; Thompson, Hanson, and McLanahan, 1994; Morrison and Cherlin, 1995; Flewelling and Bauman, 1990; Matsueda and Heimer, 1987; Carlson, 1999). Other researchers report a more general relationship between family structure and psychological adjustment. In a study of first grade students in Baltimore, 15-20 percent of all students were categorized as needing improvement in conduct, as compared with 30 percent of children in single parent families (Entwisle and Alexander, 1996). Covering a wider age range, Thomson and her colleagues (1994) report that only 11 percent of children who lived with both biological parents had dropped out of school, been suspended or expelled, or had their parents called about a behavior problem. In contrast, 19 percent of children in stepparent families, 21 percent of children in cohabiting couple families (where the male was not the child's father), 23 percent of children in divorce-mother families, and 26 percent of children in never-married-mother families reported such problems. In this same study, children living with both parents scored lowest on measures of shyness and

aggression and highest on measures of sociability and initiative, while children living in mother-stepfather families and divorced mother families scored highest on shyness and aggression and lowest on sociability and initiative scores.

Several researchers report that father absence has a more negative effect on boys' psychological well-being than on girls. However, this finding may be due to an emphasis on aggressive behavior in many of the studies. When we look at anxiety and depression (or withdrawal), boys and girls appear to have similar responses to divorce (Jekielek 1998). Children in families that have separated recently appear to have the most problems.

## Substance Abuse and Contact with the Police

Given the association between single-parent families and aggressive behavior, we should not be surprised to learn that children who live apart from their biological fathers are more likely to use illegal substances and to have early contact with the police (Comanor and Phillips, 1998; Matsueda and Heimer, 1987; Carlson, 1999; for Britain, see Hobcraft, 1995; Harper and McLanahan, 1999). Indeed, delinquency is sometimes used as an indicator of aggressive behavior (see, for example, Simons, Lin, Gordon, Conger and Lorenz, 1999). The number of years spent with a biological father decreases the chances that an adolescent will use drugs or have contact with the police (Antecol, Bellard, and Helland 2002). Although the probability of having a conviction before age 15 is low for all children, those who spend time in a single-mother household are about 70 percent more likely to have a conviction and 28 percent more likely to have smoked marijuana than children who live with both biological parents. Children who live apart from their biological fathers are also 19 percent more likely to smoke cigarettes regularly

than other children. The only negative behavior that shows no significant correlation with single parenthood is drinking alcohol. While these findings are intriguing, they have some problems; children born into cohabiting unions were recorded as living apart from their fathers unless their parents married within three years of the birth.

Along with the other problems discussed above, substance use and delinquency can both have long-term consequences that affect educational achievement and future employability. Even if behavioral problems are short-lived, if they occur at times of crucial transitions (like finishing high school and becoming sexually active) they may create disorder in the life course that carries lasting penalties (Hogan, 1980).

## Life Transitions

Numerous studies have found a strong association between spending time in a single parent families and early life transitions. Children who spend part of their childhood in a single-mother family are more likely to have sex at an early age than children who live with both parents (DeLeire and Kalil, 2002; Flewelling and Bauman, 1990). Indeed the risk of an early sexual debut is more than twice as high among children who are raised by one parent rather than two (Antecol et al 2002). Daughters from single mother families also form partnerships, and begin childbearing (marital and nonmarital) at a younger age (Wu, 1996; Wu and Martinson, 1993; Painter and Levine, 1999). Whereas young women from two-parent families have a 6 percent chance of having a child outside marriage by age 20, young women from single mother, divorced and never-married, families have an 11 and 14 percent chance respectively. Interestingly, girls in stepfamilies have a 16 percent change of having a child – the highest chance of all (Painter and Levine 2000). Once again, children from stepparent families appear to be

especially disadvantaged when it comes to early home leaving (Goldscheider and Goldscheider, 1998; see Cherlin et al, 1995 for Britain). Because early home leaving and early childbearing may interfere with educational attainment, these transitions are of particular concern. Similarly, early sexual experience is a concern if it leads to early childbearing or home leaving. Finally, early partnerships tend to be less stable and more likely to dissolve than relationships formed later in life.

### Adult Physical Health and Psychological Wellbeing

Relative to other outcomes, only a few studies have looked at the association between father absence and adult physical health. And these studies tend to focus on children that experienced parental divorce. According to these studies, women who grew up with a divorced mother have poorer physical health than adults who grew up in intact families (Glenn and Kramer, 1985). Similarly, adults whose parents divorced, and men who experienced a parental death report lower satisfaction with their health. Finally, there is some evidence that parental divorce is related to higher rates of mortality among male offspring (Tucker, Friedman, Schwartz, Criqui, Tomlinson-Keasy, Wingard and Martin, 1997).

In addition to poorer physical health, psychological and behavior problems also persist into adulthood. Adults who come from single-mother families report less self esteem and higher use of mental health services than adults who come from two parent families (Amato, 1988; Glenn and Kramer, 1985; Amato and Keith, 1991; Cherlin, Chase-Lansdale and McRae, 1998). One team of researchers found that both men and women who lived with both parents reported higher scores on different measures of mental health (Acock and Kiecolt, 1989)

## Partnership Satisfaction and Union Dissolution

Like many other outcomes, partnership satisfaction and relationship stability in adulthood are correlated with parental divorce. One study found that parent's marital quality in 1980 was correlated with children's subsequent marital quality in 1992, suggesting that children whose parents divorced may be more likely to have unhappy marriages themselves (Amato and Booth, 1997). In addition, children who experienced a parental divorce or separation were more likely to describe their own marriage as unstable (Webster, Orbuch, and House, 1995).

There is good evidence that children who have experienced a parental divorce are more likely to divorce themselves (Kulka and Weingarten, 1979; Glenn and Shelton, 1983; McLanahan and Bumpass, 1988). Amato (1996) reports that among people in which neither partner had experienced a divorce during children, only 11 percent had divorced by 1992. If one spouse's parents had divorced, the probability was between 14 and 16 percent, and if both spouses had experienced a divorce, the probability was 28 percent. The author also presents evidence that much of the increased risk of divorce is mediated through problematic interpersonal behavior.

#### Economic Well-Being in Adulthood

Finally, researchers have documented a strong link between growing up in a single mother family and adult earnings and income (Lang and Zagorksy, 2001; Powell and Parcel, 1997). Using occupational status as a measure of economic success, Powell and Parcel (1997) found that women who were living with both biological parents at the age of 16 had significantly higher status as adults than their counterparts who were living

in other family types. Children who lived apart from their fathers showed less of a correlation between their own occupational status and that of their family of origin (Biblarz and Raftery, 1999) than children who lived apart from their mothers. In other words, children from high status households were less likely to end up in high status occupations themselves if they came from a single-mother family. Finally, those adults who grew up in mother only families were more likely to experience spells of unemployment and to rely on public assistance than adults who grew up in two-parent families (Mclanahan and Sandefur 1994).

Comparing children who grew up with both biological parents to children who experienced some other family structure, Lang and Zagorsky (2001) found that adults who were raised apart from one of their parents earned, on average, \$5,015 less per year in labor market those who lived continuously with both parents throughout childhood. These same authors also found a gap in assets by childhood family structure of more than \$37,000. Finally, 7 percent of the people in their sample who grew up with two parents were living below the poverty line compared to 14 percent of people who lived with a single parent during part of their childhood. In sum, as compared with children raised by single parents, children raised by both biological parents earn more in the labor market, are less likely to be live in poverty, have a higher level of assets, and are in a better position to insure themselves against economic uncertainties.

#### **Explaining the Effects**

Many explanations have been offered for why children in one-parent families do less well than children in two-parent families. In this section we describe some of these arguments and discuss the relevant empirical evidence. Some theoretical predictions overlap, so empirical evidence may support more than one perspective simultaneously. In some cases, data limitations make it difficult to test a particular hypothesis. Moreover, as there is no systematic typology of family structures or family experiences, comparing effects across studies can be difficult.

#### Selection into Father Absence

A common (and difficult to test) explanation for the association between father absence and child outcomes is selection. According to this view, the negative outcomes that we observe among children who grow up without their biological fathers are due to differences between the kinds of people who divorce or never marry and the kinds of people who marry once and stay married.

Divorce and separation, for example, are more common among lower socioeconomic groups, and children from these groups are, on average, less successful in
adulthood. Similarly, high parental conflict is associated with both union dissolution and
poor outcomes in children. Finally, people who have problems with substance abuse,
violence, mental illness or other forms of anti-social behavior are more likely to make
poor parents and poor partners. In short, children whose parents break up are likely to be
disadvantaged across a range of observed and unobserved characteristics that are related
to both father absence and negative outcomes. Thus far, no study has been able to take
account of all of these predisposing factors and, thus, it is difficult to rule out the
selection hypothesis. Moreover, even if researchers could control for all the
characteristics described above, one could still argue that some other characteristics,
unobserved by the researcher, were responsible for both dissolution and negative child

outcomes. Indeed, without running an experiment in which children were randomly assigned to different kinds of families, it is impossible to say precisely how children in single-mother families *would have fared*, if they had lived with two biological parents.

In spite of this limitation, several second-best solutions have been developed to try and deal with the problem of selection. One method, now common in studies of the effects of family disruption, uses longitudinal data and explicitly attempts to control for pre-disruption characteristics of families (Amato, Spencer Loomis and Booth, 1995; Jekielek, 1998; Cherlin, Furstenberg, Chase-Lansdale, Kiernan, Robins, Morrison, and Tietler, 1991; Cherlin, Kiernan, and Chase-Lansdale, 1995; Frostin, Greenberg, and Robbins, 2001; Kiernan, 1997; Morrison and Cherlin, 1995; Ni Bhrolchain, Chappell and Diamond, 1994). In some instances, a measure of children's well-being prior to divorce is included in the model, while in other instances, measures of parental conflict and other characteristics of the family environment (low income, poor parenting) are included.

In general, when pre-divorce circumstances are taken into account, the associations between family disruption and child outcomes become smaller, and in some instances, they become statistically insignificant (Amato and Keith, 1991a). Also, there is evidence that in high conflict families, children whose parents divorce experience better adult outcomes than children whose parents remain together, although in low conflict families, these children do worse (Amato, Spencer Loomis, and Booth, 1995, Hanson 1999).

Nevertheless, even after taking account of pre-disruption differences in family characteristics and child well being, most studies continue to find a negative association between family disruption and successful child development. In some instances, effects

that seem to go away at one stage of childhood reappear at a later stage of development. For example, a widely cited study using the British National Child Development Study (Cherlin et al 1991) reported that the negative effects of family disruption on teenage outcomes disappeared after controlling for pre-disruption differences. However, more recent analyses of these same data find that negative effects reappear in young adulthood, even after controlling for pre-disruption differences (Frostin et al 2001, Cherlin et al). In short, controlling for observed differences in children and family well-being prior to union dissolution accounts for some, but not all, of the differences between children from intact and non-intact families.

Another approach to dealing with the selection problem is to compare children who share parents (or a parent) but who experience different family structures. For example, if parents separate when one child is 10 and the other child is 5, the older sibling can be said to have experienced 8 years of father absence (18 minus 10), while the other can be said to have experienced 13 years of father absence (18 minus 5) (Ermisch and Francesconi 2001; Yeung, Duncan and Hill, 1995; Hao and Xie, 2002). This approach assumes that the longer a child lives in a father absent family, the greater the negative effect. If this assumption is true and if these children are similar in terms of graduating from high school (or some other outcome of interest), researchers may conclude that the associated between divorce and child outcomes is due to something about the family rather than divorce per se. Other researchers have used a similar strategy to examine the effects of living in a stepparent family (Sandfeur and Wells, 1997; Gennetian, 2001; Hofferth and Andersson, 2000; Ginther and Pollak, 2000; Case, Lin and McLanahan, 1999; Case, Lin and McLanahan, 2001). In these studies, one child has

usually experienced a divorce and the second child (half sibling) has lived with both biological parents. In general, the findings from the sibling studies are quite mixed. In some cases, the differences between children in the various types of family structure become smaller and insignificant when sibling are compared, while in other cases, the differences become or remain significant. It is important to keep in mind that estimating the sibling models changes the nature of the data enormously. Blended families are a select group and what happens in these families may not generalize to the whole population. Moreover, sibling models assume that parents treat their children exactly the same and that children respond similarly to divorce, both of which are highly unlikely. It is possible that in some families, parents wait to divorce until the oldest child leaves home (or is older) precisely because they believe this child would be harmed by the divorce. If two children in such a family have similar outcomes, this does not necessarily mean that divorce (or an earlier divorce) would not have harmed the older child.

A third strategy for determining the effect of parental divorce on children is to compare children who live in states where getting a divorce was relatively easy to children who live in states where getting a divorce was harder. Gruber (2000) and Johnson and Mazingo (2000) have both examined the association between years of exposure to unilateral or "no fault" divorce laws in childhood and a range of adult outcomes including marital status, fertility, educational attainment, and earnings. Gruber (2000) finds that living in a state with unilateral laws is associated with less education, more dropping out of high school, more early marriage and more divorce. In some instances the effects differ for women and men, but in all cases at least one of the sex groups experiences a negative outcome.

Although unilateral divorce is significantly associated with poorer outcomes in children, this strategy also has its limitations as far as providing us with an estimate of the causal effect of divorce. Both sets of authors argue that the changes in divorce law may have alternated the bargaining power of husbands and wives, in ways that disadvantage their children (Johnson and Mazingo 2000). If this were true, the negative outcomes associated with changes in divorce laws might not be due to increases in divorce but rather to changes affecting parental obligations toward children more generally. In either case, the shift in divorce law appears to have been detrimental to children.

A final approach to dealing with the selection problem is to examine children who have lost a parent through death. Since death is more likely than divorce to be a random event, it can be thought of as a quasi- 'natural experiment.' If this assumption holds, the effect of parental death is likely to be a reasonable estimate of the effect of father absence under random assignment. In extensive reviews of the literature, Amato and colleagues (1991a; 1991b; 1993) report that compared to children in intact families, adolescents in bereaved families score significantly lower on academic achievement tests and males are less likely to finish high school. Children exposed to a parent's death also have more behavioral problems and lower psychological adjustment than children in two-parent families. The fact that parental death typically has a smaller (less negative) effect on children than the effect of parental divorce is consistent with the argument that at least some of the divorce effect is due to selection. However, the fact that death reduces children's well-being suggests that selection is not the whole story.

In sum, selection appears to account for some but not all of the difference in child outcomes. Families that divorce are different from families that remain continuously

married and studies that do not take account for pre-disruption differences are bound to overstate the negative effect of divorce. Moreover, although longitudinal data allow researchers to take account of observed differences prior to divorce, such data do not allow us to adjust for other differences that not observed by the researcher or readily available in datasets. Attempts to control for unobserved differences, either by exploiting new measures or employing new statistical techniques, frequently reduce the association between father absence and poor child outcomes. However, all of these methods have their own limitations and, in general, do not account for all the differences in children, families, and subsequent outcomes. The fact that parental death is negatively associated with children's outcomes is probably the strongest evidence we have to date that father absence reduces children's well being.

# The Parental Loss Perspective

Apart from selection, there are good theoretical reasons for believing that children raised apart from their fathers might do less well than children raised by two biological parents. One of the oldest explanations for why father absence might harm children posits that children in such families suffer a *socialization deficit*. According to this perspective, the loss of a parent, for any reason, is detrimental to successful child development. The presence of the same sex parent teaches young children appropriate gendered behavior so that father absence, particularly at young ages, is especially problematic for boys (Demo and Acock, 1988). In addition, interactions between two parents teach children essential interpersonal skills such as communication, cooperation, and conflict resolution. Children who are not exposed to this kind of role modeling may not develop the interpersonal skills that they need to function properly as adults which may make them

less successful in school, at work, or in their personal relationships. Put simply, the socialization deficit perspective maintains that children are deprived of important parental resources when they do not have two residential parents. Fathers and mothers play different, but important, roles in socialization and development, the loss of which cannot be compensated by greater (or better quality) time inputs from the custodial parent.

The socialization perspective maintains that the absence of a parent and the timing of the absence are critical factors underlying the negative association between father absence and child well being. If this perspective were true, we would expect all children from single mother families to be disadvantaged relative to all children from two-parent families. In other words, two similar children, both of whom lost a parent at the same age for different reasons, should have similar risks of poor outcomes. Of course, it is possible that non-resident fathers can play some role in the socialization and development of their children even when they live in separate households. Thus, holding everything else constant, we might expect to see better outcomes among children who maintained a relationship with their non-resident fathers. Children whose fathers died should have worse outcomes than otherwise similar children who benefit from high levels of father involvement.

Other adults may substitute for the lost resources of the non-resident father, and therefore we would expect children with alternative role models and sources of support, be it a step-parent, male relative or family friend, to have better outcomes than children who lack these substitutes. Finally, because important developmental and socialization processes take place when children are very young, children born outside of a union may be the most disadvantaged. These children have been deprived of necessary resources

during important developmental phases. Once again, father involvement should mediate some of their disadvantage. Similarly, all else being equal, children who experience parental loss at a later age should be less disadvantaged than children who experience loss in early childhood because more of their socialization would have occurred prior to the departure of their fathers.

Evidence of Parental Loss (Socialization Deficits)

As noted in the previous section, parents' divorce, death, and non-marriage all have negative outcomes for children. Nonetheless, the effects of parental death are usually smaller than the effects of divorce or separation, which is inconsistent with a parental loss perspective. The negative effect of divorce may be due to the fact that children whose fathers leave voluntarily are more likely to feel abandoned than children whose fathers die (Rogers and Pryor, 1998). Moreover, if a parent's death occurs at an older age than divorce, on average, not taking account of the timing of the loss may explain why children of widowed parents do better than children of divorced parents. Once they controlled for the number of years spent living apart from the fathers, Lang and Zagorsky (2001), found that death and divorce had similar effects on cognitive ability, educational attainment and earnings viii The only significant difference they identified was son's marriage. Men were significantly less likely to be married if they lost a father through death. These researchers also found that daughters whose mothers died had lower earnings than daughters who lived apart from their mothers for other reasons. Consistent with a socialization perspective, most outcomes appear to be independent of the source of separation.

Historically, the evidence on whether contact with a non-resident parent mediates the disadvantages of father absence has been mixed (Amato and Keith, 1991 McLanahan and Booth, 1989). Indeed most studies find that, aside from child support, contact with the non-resident father has no benefits for children (Furstenberg, Morgan, and Allison 1987; King). There are two reasons why researchers may have failed to find a positive effect of non-resident father contact on child well being. First, most studies have not controlled for the quality of the parents' relationship. If the parents are openly hostile or expose the child to conflict, the benefits of contact with a non-resident father could be negated. Secondly, measures of contact are often crude, counting only the number of visits between the non-resident parent and child. In a recent meta-analysis, Amato and Gilbreth (1999) found that when measures of father contact included feelings of closeness and authoritative parenting practices, the effects of contact were larger and more often significant.

The presence of other relatives in the household is frequently found to exert a positive impact on child outcomes, thus mediating the negative effects of father absence. DeLeire and Kalil (2002), for example, found that adolescent children who lived with a never married mother in a multigenerational household had better educational outcomes, were less likely to smoke, and less likely to have engaged in sexual activity before graduating from high school than children who lived with a single mother and no other adult. This finding is far from universal, however. Other research indicates that conflict between grandmothers and single mothers over who is in charge in the household may undermine parenting and ultimately child outcomes (Chase-Lansdale, Brooks-Gunn, and Zamsky 1994).. Similarly, McLanahan and Sandefur (1994) find that children do worse

when a grandmother is living in the household. Establishing an effect of other adults is difficult because the presence of other adults is likely to be endogenous. Sigle-Rushton and McLanahan (2002) have shown that unmarried mothers who live in multigenerational households at the time their child was born have lower levels of human capital and more problems with drugs and alcohol than mothers who live independently or cohabit with their baby's father. This kind of negative selection may bias the relationship between child outcomes and the kinds of support that other adults provide. Similarly, mothers with children who are experiencing problems make be more likely to seek assistance from family members, which would weaken any mediating effect (McLanahan and Sandefur 1994).

Contrary to what the socialization deficit perspective would predict, children living in stepparent families often fare just as badly as children living in single-mother families (Amato and Keith, 1991; Thompson, Hanson, and McLanahan, 1994; Painter and Levine, 1999; DeLeire and Kalil, 2002, McLanahan and Sandefur 1994). The findings for stepparent families are especially surprising, given the fact that these families have much higher incomes and more time available to parent than do single mother families. However, there are many reasons for expecting stepparents to feel less committed to a child than biological parents, including genetic endowment (Wilson and Daly), psychological attachment, and the lack clear norms about step parents' rights and responsibilities.

Finally, verifying whether or not children that were brought up by never-married-mothers (or by mothers who divorced very early on) fare worse than children whose parents divorced or separated later on is not straightforward. First, until recently few

studies examined the outcomes of children born to never-married parents. Rather, most studies combined children of never married mothers with children of divorced parents. Secondly, even when never-married-mother families are identified, researchers rarely know whether the mother ever lived with the child's biological father and for how long. Given the rise in cohabitation and non-marital childbearing to cohabiting parents, marital status alone is no longer an adequate measure of family structure (Bumpass and Raley, 1995; Bianchi, 1995). Finally, many women who give birth outside marriage eventually marry. In studies that only distinguish between two parent and one parent families, the history of living in a mother only family, and the effects of not having a father present at early developmental stages (whether due to initial absence or loss) have not been identified.

A few studies have found some support for the hypothesis that early father absence is worse than father absence at a latter age. Comparing siblings, Ermisch and Fransconi (2001) found that disruptions before age 5 were more strongly associated with negative outcomes later in life, such as low academic achievement, economic activity, and smoking, than later disruptions. Using a similar modelling strategy, however, and a different data set, Yeung, Duncan and Hill (1995) failed to find support for the early absence hypothesis. In sum, the information we have to date does not allow us to conclude that children exposed to father absence from birth are worse off or no different from children exposed to father absence during middle childhood or adolescence.

To sum up, there is moderate support in the literature for the parental loss perspective. Regardless of the cause, the loss of a parent is associated with poorer outcomes for children; and there is some evidence that the presence of other adults may

ameliorate the effects. A few issues remain however. The fact that stepfathers do not reduce the negative effects of father absence dramatically weakens support for this perspective. Similarly, the fact that the timing of father absence has not been adequately measured further reduces our confidence in this hypothesis. Careful comparisons between children born into mother only families (and those that enter them at an early age) with children who experience disruption and death at later ages would be most useful.

#### Pathways or Life Course Perspective

Rather than focusing on the direct consequences of losing a parent, the pathways or life course model focuses on other changes that typically go along with the loss of a parent. Research points to three important disadvantages that accompany father absence – *economic insecurity, inadequate mothering, and the lack of social capital.* Pathways models suggest that these "state effects" can go a long way towards explaining the observed differences between two parent and one-parent families.

Singe mother households are far more likely to have inadequate economic resources than two parent families, and there is some evidence that the poverty they experience is more extreme than that of other impoverished groups (Bane and Ellwood, 1983). Page and Stevens (2002) estimate that children in families that divorce experience a 70 percent drop in household income right after the divorce. Six years after a divorce (assuming no remarriage) the income of these children is still 40 to 45 percent lower than the income of children in intact families. These researchers also estimate that, compared to women who marry after having a non-marital birth (and stay married), those who remain single for six years after giving birth suffer income losses of around 57 percent.<sup>ix</sup>

Economic hardship can lower food consumption, affecting children's nutrition and health (Page and Stevens, 2002). Fewer economic resources also mean that single mothers will be less able than other mothers to invest in educational resources for their children such as enrichment activities, books, and computers (Amato and Keith, 1991a). In addition, children in single-mother families are more likely to live in deprived areas with lower quality schools and these "neighborhood effects" may have negative consequences for their children (McLanahan and Booth, 1989; McLanahan and Sandefur 1994).

Besides the lower income, individuals living in single-mother households are more likely to suffer greater economic insecurity than individuals in other households because female breadwinners frequently have lower status, lower paid, and less secure jobs than male breadwinners. In addition, families with only one parent are limited in their ability to self-insure against unemployment or illness. Whereas a second adult can go to work to help the family in an emergency, a single parent has no such recourse unless an older child takes on a breadwinning role, which will likely affect the school attendance and academic success of the child.

Families undergoing parental separation also experience a good deal of stress, which may undermine the mother's ability to parent., When parents are hostile to one another, children often react with feelings of fear, insecurity, sadness and stress (Maccoby and Martin, 1983). When children are drawn into the conflict, this can be especially problematic for parent-child relationships and child well-being. Additionally, recall that the socialization perspective underlined the importance of parental interactions for teaching children important interpersonal and social skills. Overt inter-parental hostility and conflict can provide poor role models for children, teaching them

inappropriate methods of conflict resolution. In addition to being stressful themselves, family transitions are often accompanied by other events that produce stress such as moving to a new house, changing schools, and parental remarriage. The stress of family disruption may make children less resilient in coping with these additional changes.

Moreover, if the stress occurs at crucial periods in the life course (such as graduating high school, becoming sexually active), the results could be quite serious in the long term.

Sociologists emphasize the loss of social capital that accompanies divorce.

According to Coleman (1988) social capital, which arises from relationships of cooperation and trust between adults, and can be used to promote the development of children's human capital. In a well-functioning two-parent family, parents cooperate and share information with each other about the child. These relationships, in turn, help them do a better job of supervising their child and of imparting the values and skills they believe are important to their child's development. Strong ties between parents and other adults in the community, including teachers and extended family members, are also useful in increasing children's human capital.

Divorce reduces children's access to parents' social capital, by undermining the relationship between the parents and the relationships between the parents and children. Children born to lone mothers and children who experience a divorce are likely to spend less time with their non-resident parent than if they lived in the same household, and in some cases, no time at all. Perhaps not surprisingly, then, many studies have shown that children in single mother and stepfamilies are less close to their fathers (Furstenberg, Nord, Peterson, and Zill, 1983; Furstenberg and Nord, 1985; Seltzer, 1991) than children in original two-parent families. Because single mothers frequently work longer hours

than married mothers, they may have less time and energy to devote to childrearing. The parenting deficit could be further exacerbated if high levels of stress – accompanying the separation process, or because of economic hardship – interfere with the custodial parent's ability to provide emotional support and a moderate, consistent, degree of control. Some research suggests that single mothers have weaker parental authority structures and make fewer demands on their children than married mothers (Amato, 1987, Astone and McLanahan, 1991; Hetherington, Cox, and Cox, 1982; Nock, 1988; Thompson, McLanahan, and Curtin, 1992). Low levels of parental support and lack of adequate supervision may result in lower psychological well-being, increased academic problems, and delinquent behavior.

Although stepparents and other social fathers are likely to increase household income, they do not appear to substitute for the loss of temporal resources and social capital that a biological father would have provided. Research has demonstrated that paternal support is highest for children who live with both biological parents and lowest for children living in stepfamilies (Thompson, Hanson, and McLanahan, 1994). In addition, stepparent families are generally characterized by lower levels of warmth and support. Stepfathers and social fathers may compete with the children for the mother's time and energy, further compromising the mother's ability to parent effectively. Hence, we would expect children in reconstituted families to suffer more parenting deficits than children living continuously with both biological parents.

According to the pathways perspective, if we took account of the processes and contexts that accompany father absence, we would be able to reduce or eliminate the association between father absence and child outcomes. Controlling for the psychological

adjustment of the custodial parent should weaken or reduce the effects of disruption on children. In terms of economic hardship, controlling for income should attenuate the association of father absence with outcomes, regardless of the reason for parental absence. And finally, controlling for the quality of parental relationship and parenting should reduce the negative outcomes associated with father absence.

Because divorce creates an acute state of adversity, the timing of a parental separation relative to the measurement or timing of outcomes should be important. Even if we assume that the stresses accompanying transitions are short term, if shocks to income, parental stress, parenting, and social capital occur at important times and impair academic success, the result could be lower occupational attainment and more economic insecurity. These problems could then cause or exacerbate marital and psychological problems later on in adulthood.

## Evidence for Pathways Perspectives

There is consistent evidence that levels of stress and the psychological adjustment of the custodial parent are associated with better child outcomes. Children of depressed mothers have higher average scores on externalizing and internalizing behavior problems than children whose mothers are not depressed (Downey and Coyne, 1990; Covey and Tam, 1990). Insofar as mothers suffer short-term depression and anxiety following a divorce, one might expect that mothers' psychological adjustment would be an important mediating factor (Heatherington et al, 1982). However, only a few studies have found evidence of such an effect. Consistent with a social capital perspective, Peterson and Zill (1986) found that the quality of the parent-child relationships reduced the effects of divorce on children's depression and behavioral problems.

Consistent with acute stress, most longitudinal studies find that the negative behavioral and psychological effects of family disruption are short term and decline over time. Although quite a few cross-sectional studies do not support this hypothesis, the inconsistency is likely due to the fact that both age and time effects are operating, which means that the relationship is likely to be curvilinear in cross-sectional data (Amato and Keith, 1991a).

A substantial body of research has demonstrated that, once income differences are taken into account, children in single mother and two-parent families are far less pronounced (Amato and Keith, 1991a). Previous investigations have concluded that income differentials account for between 30 and 50 percent of the difference in the high school graduation among children living in one- and two-parent families (McLanahan, 1985; McLanahan and Bumpass, 1988; McLanahan and Sandefur, 1994). The effects of family structure on child outcomes frequently weaken after income differences are controlled, but in many cases they remain significant. Painter and Levine (1999) present some evidence that measurement error reduces the effectiveness of income as a mediating variable in mother only families. Using an improved measure of income, these researchers find that children living in stepparent families are disadvantaged. The fact that children in stepparent families often fare worse than children in two parent biological families suggests that, while income is important, it is not the entire story.

There are problems with testing the economic deprivation hypothesis however.

Most researchers hold income constant but do not hold time and parenting inputs

constant. Mothers with higher incomes are likely to be devoting less hours to childcare,

especially when we consider fact the women generally earn lower wages than men. For

this reason, a general income effect may underestimate the extent to which income transfers, child support, or higher wages improve children's well-being. These other sources of income do not require temporal inputs may have larger and more positive effects on child outcomes than mother's earnings.

Because income is an endogenous variable and because it is affected by parents' human capital and by the amount of time they devote to the labor market, some researchers have sought to compare the effects of family structure internationally. North American and European countries differ, often dramatically, in the level of support they provide to single-mother families. Hence, an international comparison can shed light on the extent to which income deprivation is responsible for the negative association between single motherhood and child outcomes. If income has a substantial mediating effect on family structure, we would expect the effects of single parenthood to be much less negative in countries that provide greater levels of support to mother only families.

Using data from the Third International Math and Science Study (TIMSS), one team of researchers found that the negative effect of living in a single parent family varies substantially by country with children in the United States, Britain, and New Zealand showing the largest achievement gap between children living in one-parent and two parent families (Hampden-Thompson and Pong, 2002; Pong, Dronkers, and Hampden-Thompson, 2002). Because these three countries also provide the least support to single-mother families, this study provides some evidence that income effects may be important. Using a modest range of controls, these researchers found no significant achievement gap between one and two-parent families in Austria and Iceland for mathematics and no achievement gap for science in Austria, Ireland, Iceland, and the

Netherlands. Family allowances and longer periods of parental leave are also associated with a lower achievement gap by family structure. These findings are weakened to some extent by the fact that children in the social democratic countries of Iceland, Netherlands and Norway did not have lower achievement gaps than children in Mediterranean countries (Cyprus, Greece, and Portugal) where welfare states are less generous. Similarly, Bjorkland, Ginther, and Sundstrom (2002) found no difference in the effect of family structure on educational attainment for Sweden and the United States, countries with very different welfare systems.

The empirical evidence also documents difference in the parenting practices of single mother and two parent families. Controlling for differences in parenting does little to attenuate the effects of father absence, however. For example, Astone and McLanahan (1991) found that controlling for parental inputs did little to narrow the difference in the risk of dropping out of high school between children in intact and non-intact families. Similarly, Thomson et al. (1994) found that parenting practices accounted for practically none of the disadvantage associated with living in a single-mother family but between 13 to 35 percent of the disadvantage associated with living in a stepfather or mother-partner family.

An indirect method of assessing whether stigma accounts for some of the association of father absence with outcomes is to examine change in the effects of father absence over time (Ely, Richards, Wadsworth, and Elliot, 1999, Biblarz and Raftery, 1999). If stigma is a problem we would expect the effects of father absence to have declined over time. Although, an early review of the literature reported that divorce effect sizes had decreased (Amato and Keith 1991a), more recent studies contradict this

finding, at least for educational attainment and occupational status. Indeed, recent studies suggest that the effects of family structure on educational attainment have remained fairly constant in both the United States and the United Kingdom from the 1960s to the 1990s.

In sum, extant evidence suggests that processes and conditions that come along with father absence, especially the greater income insecurity and economic hardship mediate the effects of family structure on child outcomes. There is also moderate, but slightly conflicting, evidence that the effects of divorce, at least on behavioral and psychological problems, decrease with time. The evidence on the declining effects of stress must be weighed against the fact that father absence is associated with many outcomes measured in young adulthood. For this reason a better understanding of the importance of education as an intermediate pathway to other longer-term outcomes is essential. Finally, there is evidence that parenting practices change after divorce, although controlling for these changes does not seem to reduce very much the association between father absence and educational attainment.

### Summary

As previous analyses of the evidence have concluded, no one theory relating to father absence appears to prevail. Rather, all the explanations described above appear to account for some of the association between father absence and poorer outcomes in children. There is some evidence that the loss of a father has important developmental consequences for children, the effects of which are mediated by parental-like inputs from other adults, but not stepparents. Theorists can invoke evolutionary explanations for this apparent inconsistency, but this explanation requires further elaboration and verification

(Biblarz and Raftery, 1999; Case, Lin, and McLanahan, 1999). The fact that children of widowed parents fare worse than children in two parent families lends some support to the parental loss perspective. It also provides evidence against the selection hypothesis since death is more likely to be an exogenous event than divorce or separation. Because an important component of the parental loss perspective is the deficits in socialization that children suffer, researchers should pay attention to the timing of events, comparing children who lost a parent through divorce, widowhood and non-marriage in early and middle childhood as well as adolescence. These comparisons would provide more useful tests of the parental loss perspective than mere dichotomies of single versus two parent families.

Parental conflict before, during, and subsequent to a divorce or separation often accounts for a substantial portion of the relationship between father absence and children's behavior, psychological adjustment, and academic performance. These findings provide evidence for both pathways models and for selection models. Further evidence for a selection model comes from findings that children in high conflict families that remain intact often fare worse than children in high conflict families that have divorced (Jekielek, 1998; Hanson, 1999). Controlling for pre-divorce conflict often attenuates the negative association between single parenthood with child outcomes. However, by treating family disruption as an event rather than a process, researchers may have conflated the precursor with the process, making it difficult to distinguish between selection and pathways perspectives. Finally, to understand the important of parent conflict, researchers need to further our understanding of the relationships between parents who share a child born outside of a union. If parents who share a child born

outside of a union have low conflict relationships or do not have any contact at all, it will be difficult to attribute parental conflict to all the negative outcomes associated with single parenthood. Comparing the outcomes of children born outside of a union to those born within high conflict and low conflict unions may provide some additional, relevant information.

Compared to two parent families, economic resources are relatively scarce in mother only families. For those children whose parents divorce, economic resources are severely reduced creating a financial shock, if not poverty. Many children born outside of a union are born to mothers who live in poverty. There is a good deal of evidence that this economic disadvantage accounts for much of the association of father absence with child outcomes. But there is also evidence, that income is not the only explanation. In many cases the association between father absence and outcomes shrinks, but it still retains significance. Although researchers need to explore to what extent measurement error is responsible for the failure of income to account for more, it is clear that other factors, including the timing of important stressors, are likely to be important as well (Painter and Levine, 1999). If income were the only explanation, children in stepfamilies should have better outcomes than they do. In addition, we would expect children living in mother only families in Scandinavian countries to suffer the least disadvantage. Although the "achievement gap" for children in mother only families is smaller for children in these countries than for children in the United States, Scandinavian countries have a larger achievement gap than children in Mediterranean countries where the welfare state is far less developed and poverty rates among children living in mother only families are higher.

There is good evidence that parenting practices differ across family types, and there is additional evidence that parenting practices are associated with child outcomes. It is somewhat surprising then, that measures of parenting practices do not often attenuate the association of family structure and child outcomes. On the other hand, the quality of parent-child relationships (social capital) does seem to matter. But relative to income and conflict, the amount by which controlling for relationship quality reduces the adverse effect of living in a mother only family is rather modest.

In sum, there is limited support for some factors, and there are many more questions that need to be answered. With existing evidence, the role these various factors play in the development and well-being of children is difficult to determine. Often researchers have not introduced the kinds of measures that would allow us to resolve some of our questions. One of the most important limitations to date has been the reliance (often a result of data limitations) on cross-sectional measures of family structure, and often only a one versus two-parent dichotomy. Those children who, in cross-sectional data, are observed to be living in a single parent family have had a wide diversity of family experiences. Important differences between children living in two biological parent families and children living in stepfamilies makes the use of a two parent versus one parent dichotomy even more questionable. If we are going to develop a better picture of what changing family realities mean, we are going to have to develop richer and more developmentally sensitive measures of family life. In some sense, because rather crude measures of family structure performed so well and because so much of the work has been a-theoretical, there has been little incentive to develop more detailed and meaningful measures of children's lives. Thankfully, with better prospective and retrospective data and larger samples, more detailed measures are being used. But we also need better measures of parental relationships both before and after the relationship dissolves. We need better measures of parenting practices and parent-child relationships. We have, at this moment, some good explanations for why children might be disadvantaged when they do not live with their biological fathers – low income and poor relationships between parents and parents and children. To move forward, we need to take advantage of new and richer data and devote more time to evaluating and testing the various hypotheses.

## **Policy Implications**

In the previous section, we summarized what we know about the effects of father absence on children and highlighted some important gaps in our knowledge. In this section, we ask how our current knowledge can inform parents, policy makers, and other adults who are concerned with improving the well being of children.

First, several policy makers have suggested that we should make divorce more difficult as a way of reducing father absence and improving child outcomes. Whether or not this policy would be good for children is difficult to assess with existing evidence because it is not clear how much harder divorce should be made or what the net-impact on family formation would be. Clearly, a world with no divorce would not be in children's best interest since we know that in some families children are better off after their parents separate. Although it is likely that some children would be better off if their parents remained together, it is difficult to know who these children are and what set of policies would keep healthy marriages together while allowing unhealthy ones to

dissolve. On the one hand, extending the time required to obtain a divorce and providing parents with mediation services might be good for children, insofar as it might reduce the number of divorces while increasing cooperation and financial support among parents who do divorce. On the other hand, restricting divorce could prolong periods of conflict and make it more difficult for some parents to remove themselves (and their children) from unhealthy or violent relationships. These situations might make some children worse off. Moreover, making divorce more difficult might discourage more individuals from getting married, or becoming parents in the first place. It is hard to see how either of these situations – particularly the latter-- would be in the best interests of children or low birth rate societies.

Although existing research does not provide conclusive support for policies that would discourage divorce, there are, nonetheless, many findings that are relevant to policymakers. First, and perhaps most importantly, parents need to be informed about the risks associated with father absence. We cannot say with certainty how much of the effect of father absence is due to selection and how much is due to other factors triggered by divorce and separation, but we can be fairly confident that at least some of the effects are due to the reduction in children's access to parental time and money, and to declines in the quality of family relationships (social capital) that go along with divorce. Once they know more about the potential risks to children, some parents who are considering a divorce may decide to stay together. Others may decide to divorce, but they may do so in a way that minimizes their child's exposure to the conditions described above. If parents understand the potential costs to children of economic insecurity, parental conflict and the loss of fathers' time, non-resident fathers may be more willing to pay child support

and parents may make a greater effort to cooperate in raising their child even if they no longer live together.

In addition, by identifying some of the pathways that mediate the negative effects of divorce and separation, the literature on single parenthood provides policy makers and program administrators with good information about multiple entry points for intervening to improve the life chances of children. Income loss and economic insecurity appear to account for at least half of the negative consequences associated with union dissolution and possibly more. The government has made great strides toward strengthening child support enforcement during the past two decades and these efforts should be continued. Some non-resident fathers, however, are not able to provide much support in which case the US should follow the lead of our European neighborhoods who are much more generous in terms of providing income support to low-income families. We now have good experimental evidence that suggests that improving the material conditions of low-income families improves child outcomes (Bos et al., 1999, MTO).

In designing income support programs, it is extremely important that benefits be made available to two-parents families as well as single mothers. Otherwise, we may increase the prevalence of single mother families at the same time we are improving their circumstances. Making benefits available to two-parent families requires not only removing categorical restrictions that limit eligibility to one-parent families, but also revising income tests so that more two-parent families are eligible for help. If designed correctly, income supports for low-income families might actually increase marriage and family stability while also improving the well being of children in single mother families. Recent evaluations of the Minnesota Family Assistance Program – a welfare reform

initiative that increased the income of two parent families – recorded a substantial drop in divorce rates among their welfare population (Knox, V., Miller, C. and L.A. Gennetian. 2000; also see Harknett, K.and L.A. Gennetian. 2001).

Policy makers could also do much more to increase the social capital of children in father absent households. We now have evidence from several experimental evaluations that mediation programs can reduce parental conflict and increase father involvement among divorcing parents (Emery, Wolchik et al. 2002). We also know that children as well as parents benefit from programs designed to improve parents' relationship skills (Cowan, Powel and Cowan 1998; Stanley, Blumberg and Markman 1999). While these programs have not been administered to low-income couples, several pilot programs are currently being tested. As was true for programs designed to increase income, programs aimed at building parents' relationship skills should be available, not only to parents that are ending their relationship, but also to parents who are still married or hoping to marry. The Bush administration's marriage promotion program, which promises to offers new unmarried parents training in relationship skills will tell us much more about whether these programs work for low income parents and whether children's interests are served by such programs.

In sum, social scientific research has not and probably cannot tell us exactly how well children would fare if their parents had married or stayed together. Nor can it provide strong ex ante support for policies that make divorce more difficult. However, it can provide a good deal of information on the ways in which policies can be designed to address some of the problems and disadvantages that go along with father absence or parental divorce. Moreover, well designed research can assess the extent to which

policies aimed at making children better off – like income support and relationship skills training – work to stabilize marriage as well. This, we believe, is a valuable contribution.

## References

Acock, Alan C. and K. Jill Keicolt. 1989. "Is it Family Structure or Socioeconomic Status? Family Structure During Adolescent and Adult Adjustment." *Social Forces*. 68: 553-571.

Amato, Paul R. 1987. "Parental Divorce and Attitudes Towards Married Life." *Journal of Marriage and the Family* 50:453-461.

Amato, Paul R. 1988. "Parental Divorce and Attitudes Towards Marriage and Family Life." *Journal of Marriage and the Family* 50:453-461.

Amato, Paul R. 1996. "Explaining the Intergenerational Transmission of Divorce." *Journal of Marriage and the Family* 53:43-58.

Amato, Paul R. 1993. "Children's Adjustment to Divorce: Theories, Hypotheses, and Empirical Support." *Journal of Marriage and the Family* 55:23-38.

Amato, Paul R., L. Spencer Loomis and Alan Booth. 1995. "Parental Divorce, Marital Conflict, and Off-Spring Well-Being During Early Adulthood." *Social Forces* 73:895-915.

Amato, Paul R. and Bruce Keith 1991a. "Parental Divorce and the Well-Being of Children: A Meta-Analysis." *Psychological Bulletin* 110:26-46.

Amato, Paul R. and Bruce Keith 1991b. "Parental Divorce and Adult Well-being: A Meta-Analysis." *Journal of Marriage and the Family* 53: 43-58.

Amato, Paul R. and Alan Booth. 1997. *A Generation at Risk: Growing Up in An Era of Family Upheaval* Cambridge MA: Harvard University Press.

Amato, Paul R. and Joan Gilbreth. 1999. "Nonresident Fathers and Children's Well-Being: A Meta-Analysis." *Journal of Marriage and the Family* 61:557-573.

Andersson, Gunnar. 2002. "Children's Experience of Family Disruption and Family Formation: Evidence from 16 FFS Countries" *Demographic Research* 7:343-364.

Antecol, Heather, Kelly Bellard, and Eric Helland. 2002. "Does Single Parenthood Increase the Probability of Teenage Promiscuity, Drug Use, and Crime? Evidence from Divorce Law Changes." Mimeo,

Astone, Nan Marie and Sara S. McLanahan. 1991. "Family Structure, Parental Practices and High School Completion." *American Sociological Review* 6:309-320.

Aughinbaugh, Alison, Charles P. Pierret and Donna S. Rothstein. 2001. "The Impact of Family Structure and School Quality on Youth Achievement in Mathematics." Mimeo. United States Bureau of Labor Statistics. [preliminary do not quote]

Bane, Mary Jo and David Ellwood. 1983. *The Dynamics of Dependence: The Routes to Self-Sufficiency*. Cambridge, MA: Urban Systems Research.

Bethke, Lynn and Gary Sandefur. 1998. "Disruptive Events During High School Years and Educational Attainment." Mimeo, Institute for Research on Poverty, University of Wisconsin.

Bianchi, Suzanne. 1995. "Augmented title: part of a symposium on: Single parent families" *Journal of Marriage and the Family* 20: 71-97.

Biblarz. T.J. and Adrian Raftery. 1999. "Family Structure, Educational Attainment, and Socioeconomic Success: Rethinking the 'Pathology of the Matriarchy'" *American Journal of Sociology* 105:321-365.

Bjorklund, Anders, Donna K. Ginther, and Marianne Sundstrom. 2002. "Family Structure and Children's Educational Attainment: A Comparison of Outcomes in Sweden and the United States." Paper presented at the ESPE-meetings in Bilbao, June 2002.

(Bos et al., 1999).

Bumpass, Larry L. and Kelly Raley. 1995. "Redefining Single-Parent Families: Cohabitation and Changing Family Reality." *Demography* 32:97-109.

Bumpass, Larry L and Hsien-Hen Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts in the United States." *Population Studies* 54: 29-41.

Carlson, Marcia. 1999. "Do Fathers Really Matter?: Father Involvement and Social-Psychological Outcomes for Adolescents." Mimeo, Center for Research on Child Wellbeing, Princeton University.

Case, Anne, I-Fen Lin and Sara S. McLanahan. 1999. "Household Resource Allocation in Step-Families: Darwin Reflects on the Plight of Cinderella." *American Economic Review Papers and Proceedings* 234-238'

Case, Anne, I-Fen Lin and Sara S. McLanahan. 2001. "Educational Attainment of Siblings in Step-Families." *Evolution and Human Behavior* 22:269-289.

Chase-Lansdale, P.L., Brooks-Gunn, J. and Zamsky, E.S., 1994. Young African American multigenerational families in poverty: Quality of Mothering and Grandmothering. *Child Development*, 65(2): 373-93.

Chase-Landsdale, P.L., Cherlin, A.J. and Kiernan, K.E. 1995. The long-term effects of parental divorce on mental health of young adults: a developmental perspective. *Child Development*, 66:

Cherlin, Andrew J., Frank.F. Furstenberg, P. Lindsay Chase-Lansdale, Philip K. Robins, Donna R. Morrison and Julien O. Tietler. 1991. "Longitudinal Studies of Effects of Divorce on Children in Great Britain and the United States." *Science* 252:1386-1389.

Cherlin, Andrew J., Kathleen E. Kiernan, and P. Lindsay Chase-Lansdale. 1995. "Parental Divorce in Childhood and Demographic Outcomes in Young Adulthood." *Demography* 32:299-318.

Cherlin, Andrew J., P. Lindsay Chase-Lansdale and C. McRae. 1998. "Effects of Parental Divorce on Mental Health Throughout the Life Course." *American Sociological Review* 63: 239-249.

## Cherlin,

Coleman, James. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94:S95-S120.

Comanor, William S. and Llad Philllips. 1998. "The Impact of Family Structure on Delinquency." Mimeo, University of California, Santa Barbara.

Covey, Lirio S. and Debbie Tam. 1990. "Depressive Mood, the Single-Parent Home, and Adolescent Cigarette Smoking." *American Journal of Public Health* 80:1330-1333.

Cowan, P.A. Powell, D. and C.P. Cowan. 1998. "Parenting Interventions: A Family Systems Perspective." In W. Damon (ed.) *Handbook of ChildPsychology*. Vol 5. John Wiley and Sons, Inc.

DeLeire, T. and A. Kalil. 2002. "Good Things Come in Threes: Single-Parent Multigenerational Family Structure and Adolescent Adjustment." *Demography* 39: 393-413.

Demo, David H. and Alan C. Acock. 1988. "The Impact of Divorce on Children." *Journal of Marriage and the Family* 50:619-648.

Downey, Geraldine and James C. Coyne. 1990. "Children of Depressed Parents: An Integrative Review." *Psychological Bulletin* 108:50-76.

Ely, Margaret, M.P.M. Richards, M.E.J. Wadsworth, and B.J. Elliot, 1999. "Secular changes in the association of parental divorce and children's educational attainment evidence from three British Cohorts." *Journal of Social Policy* 28: 437-455.

Emery, Robert

Entwisle, Doris R. and Karl L. Alexander. 1995. "A Parent's Economic Shadow: Family Structure Versus Family Resources as Influences on Early School Achievement." *Journal of Marriage and the Family* 57:399-409.

Entwisle, Doris R. and Karl L. Alexander. 1996. "Family Type and Children's Growth in Reading and Math Over the Primary Grades." *Journal of Marriage and the Family* 58:341-355.

Ermisch, John F. and Marco Fransconi. 2001. "Family Structure and Children's Achievements." *Journal of Population Economics* 14:249-270.

Flewelling,k Robert L. and Karl E. Bauman. 1990. "Family Structure as Predictor of Initial Substance Use and Sexual Intercourse in Early Adolescence." *Journal of Marriage and the Family* 52:171-181.

Frostin, Paul, Daivd H.Greenberg, and Philip K. Robbins. 2001. "Parental Disruption and the Labor Market Performance of Children when they Reach Adulthood." *Journal of Population Economics* 14:137-172.

Fukuyama, 1999. The Great Disruption: Human Nature and the Reconstitution of Social Order New York: Free Press.

Furstenberg, Frank F. Jr., Christine W. Nord, James L. Peterson, and Nicholas Zill, 1983 "The Life Course of Children of Divorce." *American Sociological Review* 48(5): 656-668.

Furstenberg, F.F., Morgan, S.P. and Allison, P.D. 1987. Paternal participation and children's wellbeing after marital dissolution. *American Sociological Review*, 52:695-701.

Furstenberg, Frank F. Jr. and Christine W. Nord. 1985. "Parenting Apart: Patterns of Childrearing After Marital Disruption." *Journal of Marriage and the Family* 47:893-904.

Gennetian, Lisa. 2001. "One or Two Parents? Half or Step Siblings? The Effect of Family Composition on Young Children." Mimeo, Manpower Demonstration Research Corporation.

Ginther, Donna K. and Robert A. Pollak. 2000. "Does Family Structure Affect Children's Outcomes?" Mimeo, Department of Economics, Washington University.

Glenn, Norval D. and Kathryn D. Kramer. 1985. "The Psychological Well-Being of Adult Children of Divorce." *Journal of Marriage and the Family* 47:905-912.

Glenn, N.D. and B.A. Shelton. 1983. "Pre-Adult Background Characteristics and Divorce: A Note of Caution About Over-reliance on Explained Variance." *Journal of Marriage and the Family* 45:405-410.

Goldscheider, Frances K. and Calvin Goldscheider. 1998. "The Effects of Childhood Family Structure on Leaving and Returning Home." *Journal of Marriage and the Family* 60:745-

Gruber, Jonathan. 2000. "Is Making Divorce Easier Bad for Children? The Long Run Implications of Unilateral Divorce" NBER Working Paper, #7968

Guidubaldi, J. and H.K. Cleminshaw. 1985. "Divorce, Family Health, and Child Adjustment." *Family Relations* 3:35-41.

Hampden-Thompson, Gillian and Suet-Ling Pong. 2002. "Does Family Policy Environment Mediate the Effect of Single-Parenthood on Children's Academic Achievement? A Study of 14 European Countries." Mimeo. Population Research Institute, The Pennsylvania State University.

Hao, Lingxin and Guihua Xie. 2002. "The Complexity and Endogeneity of Family Structure in Explaining Children's Misbehavior." 31:1-28.

Harknett, K.and L.A. Gennetian. 2001. "How an Earnings Supplement Can Affect the Marital Behaviour of Welfare Recipients: Evidence from the Self-Sufficiency Project." Canada: Social Research and Demonstration Corporation Working Paper.

Harper, Cynthia and Sara McLanahan. 1999. "Father Absence and Youth Incarceration." Center for Research on Child Wellbeing Working Paper # 99-03.

Hernandez, Donald J. 1993. *America's Children: Resources from Family, Government, and the Economy*. New York: Russell Sage Foundation.

Hernandez, Donald. 1996. *Trends in the Well Being of America's Children and Youth.* Department of Health and Human Services.

Hetherington, E. Mavis, Martha Cox, and Roger Cox. 1982. "Effects of Divorce on Parents and Children." Pp. 233-285 in *Nontraditional Families: Parenting and Child Development*, edited by Michael E. Lamb. Hillsdale, NJ: Lawrence Erlbaum.

Heuveline and Timberlake. 2001. "An International Comparison of Children's Experiences of Family Structures." Paper presented at the General Conference of the International Union for the Scientific Study of Population in Salvador, Brazil. August 2001.

Hobcraft, John. 1995. "Intergenerational and Life-Course Transmission of Social Exclusion: Influences and Childhood Poverty, Family Disruption and Contact with the

Police." CASE paper 15, Centre for the Analysis of Social Exclusion, London School of Economics.

Hofferth, SL and KG Anderson, 2000 "Biological and Stepfather Investment in Children." Paper presented at Conference on Conflict and Cooperation in Families, sponsored by the MacArthur Network on Families and the Economy and the NICHD Family and Child Well-Being Research Network, Bethesda, MD, March 3-4.

Hogan, Dennis P. 1980. "The Transition to Adulthood as a Career Contingency." *American Sociological Review* 45:261-276.

Jekielek, Susan M. 1998. "Parental Conflict, Marital Disruption, and Children's Economic Well-Being." *Social Forces* 76:905-935.

Johnson, John H. and Christopher J. Mazingo. 2000. "The Economic Consequences of Unilateral Divorce for Children." Social Science Research Network Electronic Paper Collection: http://papers.ssrn.com/paper.taf?abstract\_id=236227

Kiernan, Kathleen. 1997. "The Legacy of Parental Divorce: Social, Economic, and Demographic Experiences in Adulthood." CASEpaper 1, Centre for the Analysis of Social Exclusion, London School of Economics.

Knox, V., Miller, C. and L.A. Gennetian. 2000. Reforming Welfare and Rewarding Work: Final Report on the Minnesota Family Investment Program. New York: Manpower Demonstration Research Corporation.

Kulka, R.A. and H. Weingarten. 1979. "The Long-Term Effects of Parental Divorce in Childhood on Adult Adjustment." *Journal of Social Issues* 35:50-78.

Lang, Kevin and Jay L. Zagorsky. 2001. "Does Growing Up With A Parent Absent Really Hurt?" *Journal of Human Resources* 36: 253-273.

Maccoby, Eleanor E. and John A. Martin. 1983. "Socialization in the Context of the Family:Parent-Chlid Interaction." Pp.1-101 in *Handbook of Child Psychology*. 4<sup>th</sup> edition Vol. 4, edited by E. Mavis Hetherington. Wiley.

Manski, Charles F., Gary D. Sandfeur, Sara S. McLanahan and Daniel Powers. 1992. "Alternative Estimates of the Effect of Family Structure During Adolescence on High School Graduation." *Journal of the American Statistical Association* 87:25-37.

Matsueda, Ross L. and Karen Heimer. 1987. "Race, Family Structure and Delinquency: A Test of Differential Association and Control Theories." *American Sociological Review* 52:826-840.

McLanahan, Sara. 2002. "Life Without Father: What Happens to Children? Context.

1(1): 35-44.

McLanahan, Sara S. 1985. "Family Structure and the Reproduction of Poverty." *American Journal of Sociology* 9:873-901.

McLanahan, Sara S. and Larry L. Bumpass, 1988. "Intergenerational Consequences of Family Disruption." *American Journal of Sociology* 94:130-152.

McLanahan, Sara S. and Karen Booth. 1989. "Mother-Only Families: Problems, Propects, and Politics." *Journal of Marriage and the Family* 51:557-580.

McLanahan, Sara S. and G. Sandefur. 1994. *Growing Up with a Single Parent: What Hurts, What Helps?* Cambridge, MA: Harvard University Press.

Morrison, Donna R. and Andrew J. Cherlin. 1995. "The Divorce Process and Young Children's Well-Being: A Prospective Analysis." *Journal of Marriage and the Family* 57: 800-812.

Ni Bhrolchain, Maire, Roma Chappell and Ian Diamond. 1994. "Scolarite et Autres Characteristiques Socio-Demographiques des Enfants de Mariages Rompus." *Population* 49:1585-1612.

Nock, Steven. 1988. "The Family and Hierarchy." *Journal of Marriage and the Family* 50:957-966.

Page, Marianne E. and Ann H. Stevens. 2002. "Will You Miss Me When I Am Gone? The Economic Consequences of Absent Parents." NBER Working Paper, #8786.

Painter, Gary and David I. Levine. 1999. "Daddies, Dedication, and Dollars: What About Family Structure Matters for Youth?" Mimeo, Institute for Industrial Relations, paper #73.

Painter, Gary and David I. Levine. 2000. "Family Structure and Youths' Outcomes Which Correlations are Causal?" *Journal of Human Resources* 35:524-549.

Peterson, James L. and Nicholas Zill. 1986. "Marital Disruption, Parent-Child Relationships, and Behavioral Problems in Children." *Journal of Marriage and the Family* 48:295-307.

Pong, Suet-Ling, Jaap Dronkers, and Gillian Hampden-Thompson. 2002. "Family Policies and Academic Achievement by Young Children in Single-Parent Families: An International Comparison." Mimeo. Population Research Institute, The Pennsylvania State University.

Powell, Mary Ann and Toby L. Parcel. 1997. "Effects of Family Structure on the Earnings Attainment Process: Differences by Gender." *Journal of Marriage and the Family* 59: 419-433.

Rogers, Bryan and Jan Pryor. 1998. *Divorce and Separation: The Outcomes for Children*. York: Joseph Rowntree Foundation.

Sandefur, Gary D. and Thomas Wells. 1997. "Using Siblings to Investigate the Effects of Family Structure on Educational Attainment" Mimeo, University of Wisconsin.

Seltzer, Judith. 1991. "Relationships between Fathers and Children Who Live Apart: The Father's Role After Separation." *Journal of Marriage and the Family* 53:79-101.

Sigle-Rushton, Wendy and Sara S. McLanahan. 2002. "The Living Arrangements of New, Unmarried Mothers." *Demography* 39:

Simons, Ronald L., Kuei-Hsiu Lin, Leslie C. Gordon, Rand D. Conger, and Frederick O. Lorenz (1999) "Explaining the Higher Incidence of Adjustment Problems Among Children of Divorce Compared with Those in Two-Parent Families." *Journal of Marriage and the Family* 61:1020-1033.

Smith, Thomas E. 1990. "Parental Separation and the Academic Self-Concepts of Adolescents: An Effort to Solve the Puzzle of Separation Effects." *Journal of Marriage and the Family* 52:107-118.

Stanley, S.M., Blumberg, S.L. and Markman, H.J. (1999). Helping Couples Fight for Their Marriages: the PREP approach. Pp. 279-393 in R. Berger and M.T. Hannah (eds.) *Preventive Approaches in Couples' Therapy*. Philadelphia: Brunner/Mazel, Inc.

Thompson, Elizabeth, Sara S. McLanahan, and Roberta B. Curtin, 1992. "Family Structure and Parental Socialization." *Journal of Marriage and the Family 54:368-378*.

Thompson, Elizabeth, Thomas L. Hanson, and Sara S. McLanahan. 1994. "Family Structure and Child Well-Being: Economic Resources vs. Parental Behaviors." *Social Forces* 73:221-242.

Tucker, J.S., H.S. Friedman, J.E. Schwartz, M.H. Criqui, C. Tomlinson-Keasey, D.L. Wingard, and L.R. Martin. 1997.. "Parental Divorce: Effects on Individual Behavior and Longevity. *Journal of Personality and Social Psychology* 73:381-391.

Ventura, S.J. and C.A. Bachrach. 2000. "Nonmarital Childbearing in the United States, 1940-99." *National Vital Statistics Reports* 48 (16). Hyattsville, MD: National Center for Health Statistics.

Webster, Pamela S., Terri L. Orbuch, and James House. 1995. "Effects of childhood family background on adult marital quality and perceived stability," *American Journal of Sociology* 101: 4-32.

Wolchik, S. Sandler, I. Millsap, R. Plummer, B. Green, S. Anderson, E. Sawson-McClure, S. Kipke, K. and R. Haine. 2002. "Six Year Follow-up of Preventive interventions for Children of Divorce." *JAMA*, vol. 288, 15: 1874-1881.

Wu, Lawrence L. 1996. "Effects of Family Structure and Income on the Risks of a Premarital Birth." *American Sociological Review* 58:210-232.

Wu, Lawrence L. and Brian C. Martinson. 1993. "Family Structure and the Risk of a Premarital Birth." *American Sociological Review* 58:210-232.

Yeung, Jean W., Greg J. Duncan and Martha Hill. 1995. "A Sibling-Based Analysis of the Effects of Family Structure on Children's Achievement." Paper presented at the 1995 Meeting of the Population Association of America.

Zavondy, Madeline. 1999. "Do Men's Characteristics Affect Whether a Nonmarital Pregnancy Results in Marriage?" *Journal of Marriage and the Family* 61:764-773.

## **Endnotes:**

- <sup>i</sup> Many children living in one-parent families are living with women who are separated or whose spouse is absent so separation could have preceded widowhood. Moreover, a widowed woman may have had a non-marital birth so that the real pathway into a mother only home was non-marital childbearing and not death. Similarly, a divorced woman may have had a child after her divorce so using cross-sectional data on living arrangements and marital status to determine the pathway into a mother-only family will misclassify some children's experiences.
- Although divorce rates began rising as far back as the 1860s and could be argue to have been an increasingly important pathway since that time, it was not until the 1960s that there were real increases in the percentage of children living with one parent. This is because up until 1960, there was a substantial decline in parental mortality, and the two cancelled one another out (Hernandez, 1993).
- <sup>iii</sup> Unfortunately, neither Andersson (2002) nor Heuveline and Timberlake (2001) provide life table estimates of US children by race. Both authors use data from 1995 to estimate multi-state life tables using the fertility and partnership histories of mothers aged 15-44. Both treat non-residence from the mother as a single and absorbing state that includes living with neither parent and living with the father only.
- <sup>iv</sup> When we refer to a relationship that is not bivariate we specify which variables are included as controls.
- <sup>v</sup> Although those students whose parents separated prior to grade three were not significantly different on the academic self-concept scale to students who had lived continuously with both parents.
- vi Guidubaldi and Cleminshaw (1985) showed that among children in the US School Psychologists study, those from divorced families were reported to have poorer health than those in intact families. So physical health problems may begin early on.
- vii In both cases, zero-order correlations are not reported and the relationships reflect regression coefficients holding constant age, father's social class, parental education, size of community of origin, sibship size, religion, and maternal employment.
- viii The way these authors measure time apart does not perfectly capture the timing, or indeed the cause of father absence. If a child experienced a parental divorce at age six and then her father died at age 15, she will have been coded as having spent 12 years apart from her father and three years before the age of 18 in a bereaved family even though bereavement was not the cause of her separation.
- <sup>ix</sup> When they allow for the possibility of remarriage for divorced women, average income six years after a divorce is only 15-20% lower. When they allow for divorce after marriage to single mothers, income differences are also much lower



