

THE FAMILY STRUCTURE EXPERIENCES OF CHILDREN IN SINGLE MOTHER FAMILIES

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Abstract

Using merged mother-child data from the National Longitudinal Survey of Youth 1979, we examine the family structure experiences of children born to single (unmarried and not cohabiting) mothers up to age 10. Specifically, we examine the probability that such children remain with a single mother vs. entering one or more cohabiting or marital unions. For those children whose mothers do enter unions, we examine whether the union was marital vs. cohabiting, as well as distinguish between unions with children's biological fathers vs. those with step-fathers. Finally, we consider the duration of such unions. We perform all analyses separately by race and ethnicity. In doing so, we take a child-based perspective, over a long period of time, to examine stability and change among children born to single mothers in the United States.

THE FAMILY STRUCTURE EXPERIENCES OF CHILDREN IN SINGLE MOTHER FAMILIES

Using merged mother-child data from the NLSY79, this paper examines the living arrangements of children born to single (never-unioned) mothers over their first ten years of life. Specifically, we examine the probability that such children remain with a single mother vs. entering one or more cohabiting or marital unions. For those children whose mothers do enter unions, we examine whether the union was marital vs. cohabiting, as well as distinguish between unions with children's biological fathers vs. those with step-fathers. Finally, we consider the duration of such unions. We perform all analyses separately by race and ethnicity. In doing so, we take a child-based perspective, over a long period of time, to examine stability and change among children born to single mothers in the United States.

Single-Parenthood and Child Well-Being

The number of children living with a single parent has increased dramatically in the past decades. In 2006, 29% of all U.S. children under the age of 18 were living with an unmarried parent (17% of these children were living with a single father and the rest were living with a single mother). These statistics vary dramatically by race and ethnicity. In 2006, 21% of all non-Hispanic white children lived with a single parent, compared to 56% of black children and 29% of Hispanic children (U.S. Census Bureau, 2006a).

From the 1960s through the mid-1980s, the vast majority of children living with a single mother entered this arrangement due to a divorce or separation. In more recent years, however, the population of children living with a single mother is increasingly comprised of children born to never-married mothers. In 2006, 43% of all children living with a single mother lived with a never-married mother, vs. 53% living with a divorced or separated mother and 3% living with a

widowed mother (U.S. Census Bureau). Although the number of children born to single mothers has increased, however, many do not remain in that living arrangement for long. Bzostek, Carlson, & McLanahan (2006) find that 12% of cohabiting and single mothers enter new unions by the time their child is 3 years old. It should also be noted that recent research has also highlighted that many “single” mothers are not, in fact, single. For example, in a sample of urban, non-married new mothers, Sigle-Rushton and McLanahan (2002a) found that half were living with, although not married to, the child’s father at the time of the child’s birth. As noted below, however, many of these unions are short-lived.

A great deal of research has examined the influence on children of living with a single parent. In general, this research finds that growing up with a single parent is associated with more behavior problems, higher rates of teenage pregnancy, and lower academic achievement (McLanahan & Sandefur, 1994). The influence of living with a single parent appears to extend into adulthood as well. For example, a recent study found that men who grew up in father-absent households had higher rates of incarceration than those who lived with both biological parents (Harper & McLanahan, 2004), while McLanahan and Sandefur (1994) found that living with a single parent is associated with higher rates of unemployment and public assistance use in adulthood and Wu (1996) documents an association with early childbearing.

Other studies have examined the influence of complex living arrangements on children. Generally, research shows that children living with a step-parent fare worse than those living with married biological parents (e.g., Brown, 2004; Peters & Mullis, 1997; Sigle-Rushton & McLanahan, 2002b).

However, it is not clear whether the association between living with a single parent and adverse outcomes is causal, or related to other, unobserved, characteristics of such parents an

their children. Some studies find that, after controlling for an extensive range of previously omitted characteristics, differences in outcomes between children in single- and married-parent families become insignificant (Carlson & Corcoran, 2001; Ginther & Pollak, 2004). In particular, because large income differences exist between children living with single- vs. married parents, controlling for income often reduces, and sometimes eliminates, differences in outcomes between children in these family structures (reviewed in Sigle-Rushton and McLanahan, 2002b). Other studies (Dunifon & Kowaleski-Jones, 2002; Foster & Kalil, 2007; Gennetian, 2005) examine how children's outcomes change in conjunction with changes in family living arrangements, thereby comparing children to themselves over time, rather than contrasting between children with different backgrounds and experiences. Studies using such methods often find small or insignificant associations between living arrangements and children's outcomes. Taken together, then, the literature suggests that differences between children living with single vs. married parents do exist, but that because of selection factors that may differ between such families, they may be smaller than previously thought.

Research on single-parenthood is also complicated by the fact that children living in a single-parent family represent a heterogeneous group. Some were born to a single parent and will remain in that arrangement (i.e., with a mother who never marries or cohabits) until they leave home; others have experienced one or more unions and/or dissolutions. It is possible that it is family structure change that is detrimental for children, not the living arrangement itself. This hypothesis would suggest the importance of considering the number of changes a child has experienced, as well as the duration in various living arrangements. The goal of this paper is to enhance our understanding of the extent and nature of family change and stability among children born to single mothers.

Family structure change and children

The research described above documents the associations between living with a single parent and child well-being. However, single mothers often do not remain single for long. For example, over a 16 month period, Cherlin and Fonby (2007) found a 5% decrease in the number of lower-income mothers who were living alone, almost entirely caused by the entrance of these women into cohabiting unions with men who were not the children's biological fathers. Other research shows that such cohabiting unions are often unstable. According to Lichter, Qian, and Mellott (2006), half of cohabiting unions end after one year, and 90% end after 5 years, the vast majority of which end by dissolution, not marriage. Using data from the Fragile Families Study, Osborne and McLanahan (2007) show that children born to single mothers experience a great deal of family structure instability over their first 3 years of life; over 30% of children born to single mothers experienced 3 or more partnership transitions in the first year years of life.

Schoen, Landale and Daniels (2007) use a sample of youth from the National Study of Adolescent Health to examine family transitions into both parenthood and relationships (cohabiting and marriage) from ages 11 to 24, separately for white, black and Mexican-American women. Results show that 3 out of 8 women had a birth during this period, and most of these occurred outside of marriage (66% of births occurred outside of marriage for whites, 96% for blacks, and 72% for Mexican-American women). Additionally, this study documented high rates of cohabitation; 59% of women in the study cohabited before the age of 24. As with previous studies, this research documented the short duration of these relationships. Finally, the study highlighted the diversity of family structure experiences by race and ethnicity.

Thus, many children born to single mothers will experience family structure changes, as that mother enters a cohabiting or marital union. Family structure changes could lead to

disruptions in family routines, could strain the parent-child relationship, or be accompanied by other disruptive changes such as residential moves. It is possible that it is not the family structure per se, but the disruptions associated with changes in family structure, that could lead to detrimental outcomes among children shown in the studies reviewed above. A body of research has established that family instability is associated with negative outcomes among children. Wu (1996), looking at factors predicting premarital births, documents large and significant detrimental effects of family structure changes. Cavanagh, Crissy, and Raley (2008) and Cavanagh and Huston (2006) show links between family structure changes and teenage romantic relationships and young children's behavior problems, respectively. Brown (2006) examined specific types of transitions, finding that when single mothers enter a cohabiting union, children's outcomes worsen, while exiting a cohabiting union and entering single-parenthood was associated with neutral or positive outcomes for children. If it is instability, rather than family structure per se, that is important for children, then children living with a stable single parent (one who never marries or cohabits) may fare better than others. This topic has not received much research attention (but see Kamp-Dush, forthcoming).

As with the study of single-parenthood, it is likely that selection is an issue when looking at family change—specifically, families undergoing instability may differ in numerous and unobservable ways from those who do not. It is possible that these factors, rather than the instability itself, is responsible for the detrimental outcomes often observed among children. Fonby and Cherlin (2007) addressed this issue by controlling for a wide range of mothers' characteristics that pre-dated the emergence of family instability and found that controlling for such factors accounted for most of the association between family instability and child outcomes.

Thus, research suggests that children born to single mothers experience a great deal of family instability, and that such instability may be detrimental to their development. However, to date no other study has examined in detail, and over a long time period, the patterns of living arrangements of children born to single mothers. The Schoen study, cited above, while examining change over a long period of time, is a woman-, rather than child-, based sample. Accordingly, that study did not consider the biological status of the men with whom women were living. As noted above, children outcomes likely differ depending on whether their mother is living with their biological father vs. a step-father. The goal of this study is to get a full picture of the life changes experienced by children born to single mothers. Using NLSY mother-child data on the first 10 years of life, this study documents the number of transitions children experience, the type of transition (step vs. biological father, cohabiting vs. marriage), and the duration of each living arrangement. With this information, we can begin to better understand the living arrangements of American children, and thereby inform policies and research on this important topic.

Data

To address these questions, we use data from the National Longitudinal Survey of Youth 1979 (NLSY79) merged mother child file. The NLSY79 was designed to gather information on the labor market experiences of a nationally representative sample of 12,686 men and women between the ages of 14 to 22 in 1979. Data were collected annually from 1979 through 1994, and biannually thereafter. Sample design procedures oversampled blacks, Hispanics, and economically disadvantaged non-blacks/non-Hispanics. Starting in 1986, the children of the women of the NLSY79 (CNLSY79) have been assessed every two years, measuring aspects of their cognitive and social development. As of 2004, it is estimated that the CNLSY79 sample

includes about 90% of the children to be born to the NLSY79 women (Center for Human Resource Research, 2004). Our analyses utilize data on these children, particularly detailed information on the child's family structure history.

A key limitation of the NLSY mother-child data is the lack of information on children's fathers. The structure of the data means that children are only followed when they live with their mothers. Therefore, the sample does not contain any children living with only their fathers, or with fathers and stepmothers. Additionally, because all data reports come from the child's mother, the data contain limited information on the child's father. Despite these shortcomings, the NLSY has several strengths making the data well suited for our purposes. The main strength lies in the fact that these children and their mothers have been followed since birth, giving us extensive information the lives of children and their mothers over a child's entire lifespan.

To create the data used for this project, we created a stacked person-year file for each mother, with a line of data for each interview year between 1979 and 2004 (e.g. 1979-1994, 1994, 1998, 2000, 2002, and 2004). We used this stacked person-year file to create a family structure history for each mother, as described below. After coding of the family structure histories were completed, we merged a stacked version of the children's data into the mother's data. Children were dropped if the child's birth year was missing ($n = 3$) or if the relationship status of the mother at birth was missing ($n = 1$). This gave us a sample of 4,910 mothers and 11,428 children. Because our goal is to examine the family structure experiences of children born to single mothers – mothers who were not in any union at the birth of the child - we further restricted our analyses to children born to single mothers, giving us a sample of 3209 children. We also limited our analyses to children whom we had data for through at least age 10. This led to us dropping an additional 16% of the mothers. Of this, some were dropped due to attrition of

the mother prior to age 10 and 36% due to the child having a birthdate after 1994 and hence not reaching the age of 10 by 2004. Of the 2695 remaining children, we dropped 100 children due to unusable data. Data were deemed unusable if the status of the father in the household was missing or inconsistent (by which we establish the status of the mother's relationship with the biological father) and if mothers had multiple union spells with the same individual, which made it difficult to establish transition timing and mothers' relationship histories. Our final sample size was 2595 children born to single mothers.

Measures

Family Structure. Each child's family structure history was coded using a series of constructed variables available in the NLSY79 data that assess the total number of partners the mother had ever had by a given wave, as well information on her current relationship, if any (i.e., whether married or cohabiting; see Appendix 1 for more details on these variables). Missing data could occur for any of three reasons. First, data were only collected every other year beginning in 1994, and hence was missing every other year from there forward. Second, for the 10% of children born before 1979, information on early family structure transitions was missing. Third, when mothers missed waves or experienced multiple transitions in a given year, the type of living arrangements she experienced during that time is underestimated.

To address issues of missing data, we supplement information from the created variables with a series of marital history and transition variables measuring months and years of relationship initiations and terminations that were taken every year (see Appendix 2 for a description of the variables used to code missing years). For situations in which the retrospective reports taken at each wave conflicted with the retrospective relationship status reported at a given wave (i.e., the respondent retrospectively reported living with a partner in a given year, but did

not report them as in the household at the interview date of that year), we used the reported family structure at the time of the interview.

Using these measures, we created family structure histories at each year, which were then merged with the child data. Hence, for all years between 1970 (the earliest date of birth in the NLSY79 Children and Young Adult dataset) and 2004, we coded children's living arrangements in 181,481 person years of data, 28% of which were coded using retrospective data. (Because respondents were not asked retrospectively about cohabitations until 2002, we cannot measure short-term cohabiting relationships that had dissolved by the time the mother was assessed at a given wave). As noted above, our sample consists of all children born to single (i.e., not married or cohabiting) mothers whom we had data on from birth through age 10 ($N = 2595$). We utilize 28,544 person years of data for this sample from the child's birth year through age 10. For this sample of children, we identify the following family structures: (1) single parent/child never in union; (2) first cohabiting union with the child's biological father; (3) first marital union with the child's biological father ; (4) first cohabiting union with a step-father; (5) first marital union with a step-father; (6) single parent after a first union; (7) second cohabiting union with a step-father; (8) second marital union with a step-father; (9) single parent after a second union; (10) third cohabiting union with a step-father; (11) third marital union with a step-father; (12) single parent after a third union. Because less than a tenth of a percent of children ever experienced a single parent family after a third union dissolution, this family structure was dropped from the multistate life table analyses. Fewer than 4% of children born to single mothers experience a fourth or higher order union.

Age of child. The age of the child was coded in years.

Mother's race/ethnicity. Race and Hispanic origin were coded from the mothers' race in as black, Hispanic, and non-black/non-Hispanic. This variable was created based on the 1978 household screening. The code *Hispanic* was given to those who self-identified as Hispanic, which included Mexican American, Chicano, Mexican, Cuban, Puerto Rican, Boriccuca, Portuguese, Filipino, and Latino, Other Latin American, Hispano, or Spanish descent. The code of Hispanic was also given to those who reported speaking Spanish at home as a child; and those whose family surname is listed on the Census list of Spanish surnames. Seventeen percent of the sample was Hispanic. The code *black* included those for whom race was coded "black" and ethnic origin was "non-Hispanic" or black, Negro, or Afro-American. Sixty-four percent of the sample was black. The code of *non-black/non-Hispanics* included those whose race was coded "white" or "other" and who did not identify themselves as either black or Hispanic in answer to the ethnicity question. Nineteen percent of the sample was non-black, non-hispanic.

Method

We use multistate life tables of children's family structure histories to examine the rates of transfer observed in the survey, as well as the stability of states. We were interested in 11 living states: (1) single parent/child never in union; (2) first cohabiting union with the child's biological father; (3) first marital union with the child's biological father ; (4) first cohabiting union with a step-father; (5) first marital union with a step-father; (6) single parent after a first union; (7) second cohabiting union with a step-father; (8) second marital union with a step-father; (9) single parent after a second union; (10) third cohabiting union with a step-father; (11) third marital union with a step-father. We construct one multistate model, shown in Figure 1. The model begins at the birthyear of the child, and follows the children, using single years of age, until they attain age 10. We use age 10 as a cut-off point because 94% of children born to

single mothers in the NLSY were born in or prior to 1994, thus we capture a large proportion of the children as well as a significant proportion of their childhood. Respondent reports were aggregated to identify the number of person-years lived in each state and the number of moves between union states and dissolution states, by age and race/ethnicity. We calculate multistate life table models for the full sample, as well as separately for black, Hispanic, and non-black, non-Hispanic children. The model shown in Figure 1 is useful as it incorporates transitions into and out of both marital and cohabiting unions, and also follows children's experiences with both biological fathers as well as step-fathers.

Preliminary Results

Figure 2 shows the distribution of living arrangements from ages 0-10 for our sample of non-black/non-Hispanic children born to single mothers. What is immediately apparent from this figure is the large number of transitions such children experience. By the age of 10, less than 15% of white children born to single mothers were still living with a never-married, never-cohabited single mother. Transitions out of stable single-motherhood happened quickly and steadily over time. By the age of one, about 19% of non-black/non-Hispanic children were living with married biological parents; this percentage increased each year until around age 8, when about 31% of white children were in such an arrangement. Additionally, the percentage of children living with a mother and step-father increased quickly and over time. By the age of one, about 8% of white children born to single mothers were in this arrangement. However, such unions were unstable. The percentage of children living with a mother who had divorced or separated from a partner increased steadily, such that by age 10, 35% of all children had experienced at least one divorce or cohabitation dissolution. Finally, a substantial number of

mothers were entering second and third relationships over this period with almost 15% of children having experienced a second or third union by the age of 10.

Figure 3 shows the same distribution for black children, with results that are strikingly different from those of whites. For black children, exits out of single-motherhood were much rarer, with 48% of Black children remaining with a stable single mother who had never married or cohabited by the age of 10. Additionally, few black children born to single mothers later came to live with their fathers; the peak was 18% in such an arrangement between the ages of seven and nine. While black single mothers were less likely to marry than whites, their relationships also were more unstable; by age 10, about 25% of black children born to single mothers were living with a mother who had experienced a union dissolution. Black single mothers were also less likely than whites to enter second and third unions.

Figure 4 presents results for Hispanic children, whom tended to fall somewhere between whites and blacks in terms of their family structure experiences. Here again we see quick and sustained exits out of single-motherhood such that less than a quarter of Hispanic children were still living with a stable single mother by age 10. A substantial number of Hispanic mothers eventually married or cohabited with their child's biological father such that at its peak, 34% of Hispanic children born to single mothers lived with their biological father in a union. A greater proportion of Hispanic unions were cohabiting unions rather than marital unions in comparison with the unions of White mothers. Unions to Hispanic mothers were unstable, as 28% of children by the age of 10 were living with a mother who was single after a union dissolution, and 7% were living in a second or third union of their mothers.

Future Directions

Moving forward, we will conduct the multistate life table analyses described above. Specifically, we will examine the number of entries into and exits from marital and cohabiting unions, distinguishing those who were with a child's biological father from those that were not. We will also examine the duration of these unions. We will perform analyses separately for white, black and Hispanic children, and for first, second and third unions. In these analyses, we will incorporate the most recent years of NLSY data available, which will increase our sample size.

Discussion

The goal of this study is to get a full picture of the life changes experienced by children born to single mothers. Using NLSY mother-child data on the first 10 years of life, we document quick and steady exits out of single-motherhood for these children, with patterns that differ dramatically by race. With this information, we can begin to better understand the living arrangements of American children, and thereby inform policies and research on this important topic.

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Appendix 1.

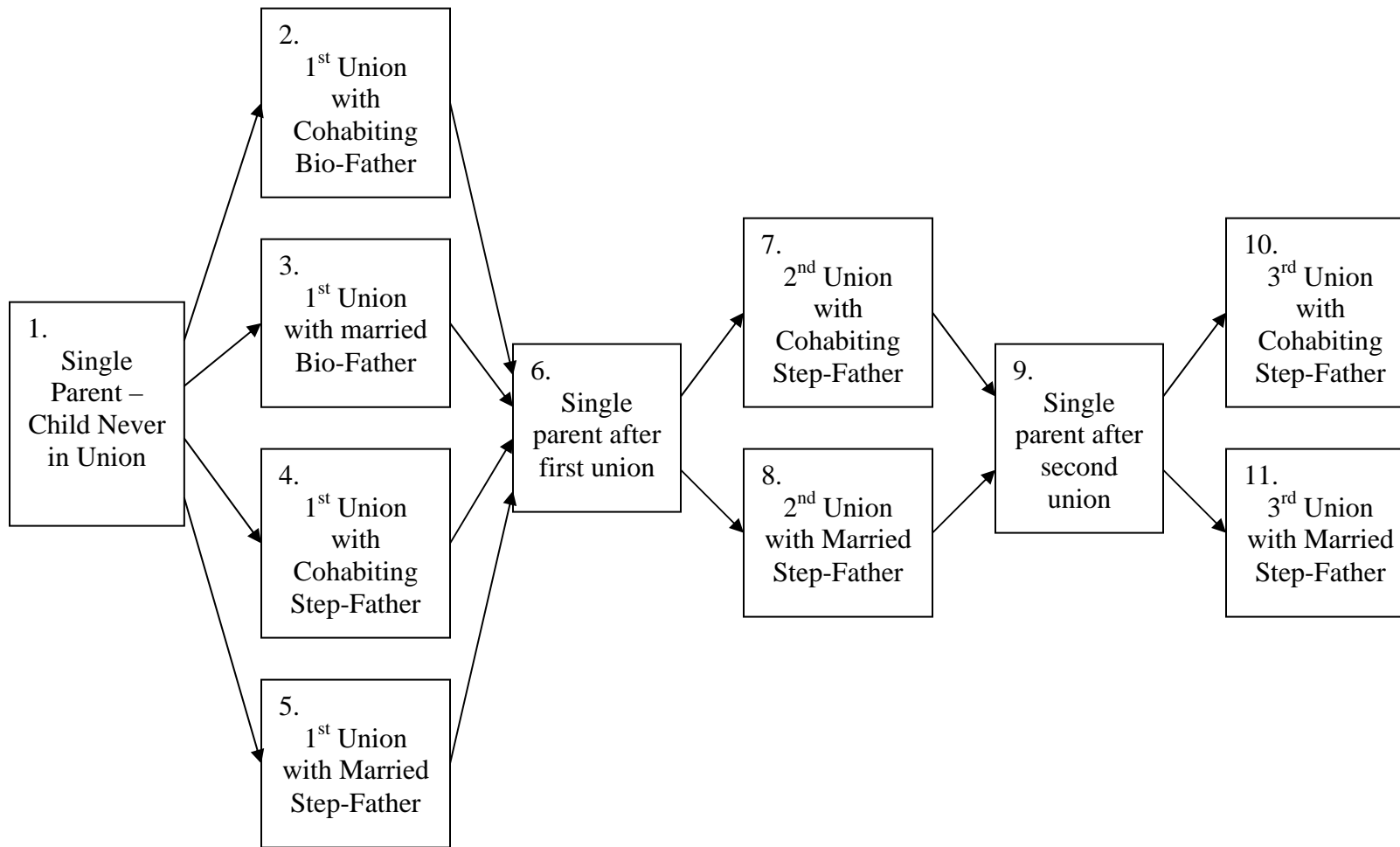
The NLSY79 created a series of constructed variables for each survey year that provides information regarding the respondent's relationship status. First, all surveys were examined to match names of spouses and/or partners for the entire administration of the NLSY79 from 1979 to 2002. The first variable, *partner number*, provides information about the respondent's total number of spouses and/or partners since 1979 and can range from 0 to 9. The mothers' *partner number* is 0 when she has never been married or never cohabited, and increments by 1 each wave that a new partner is noted in the household (Note, in the NLSY, cohabitation is defined as living with an opposite sex adult as a partner). If the same spouse or partner resides with the respondent during the next survey round, the *partner number* remains the same. If the respondent has a new spouse or partner, the next available number is given to that person. If in a later survey round the respondent is reunited with a previous spouse or partner, the partner number does not increase, and the code for that year reflects that partner's original number. Second, a unique code is assigned to each the spouse/partner at a particular interview date such that the variable *partner relationship code* is coded 1 for a spouse, 33 for a cohabiting partner, and in instances where the exact relationship was undetermined in a given round, the partner was given a code of 36 (n = 723). This situation arises most often when an opposite sex partner is reported in the household roster, but not as a cohabiting partner. We recode these individuals as cohabiting partners. If no spouse or partner is present at a given survey point, but the respondent has reported a spouse/partner in the past, their *partner relationship code* will be zero, and the *partner relationship code* is missing if the respondent has never reported a partner.

Appendix 2.

The retrospective indicators of family structure include the month and year the respondent began a first, second, or, beginning in 1988, a third marriage and the month and year a first or second marriage ended, as well as the month or year of the most recent marriage and the month or year during which the first marriage ended, all since the last interview date. Beginning in 1980, a variable *Change(s) in Marital Status since the Last Interview* was also added, as well as the month and year of the change. Changes included separation, divorce, reunited, widowed, and remarried. Further, for cohabitation, from the 1990 and 1992-2004 surveys, the following information was collected: (1) regarding current cohabiting partners: the month and year the respondent and his/her opposite-sex partner began living together; (2) whether the respondent lived with his/her spouse before marriage; (3) the month and year the respondent and his/her spouse began living together; and (4) whether the respondent and his/her spouse lived together continuously until marriage. Beginning in 2002, respondents were asked whether they lived with a partner for at least three months during any marital gaps lasting 3 months or more since the last interview, as ascertained by the marital change variables and the months and dates recorded for marriages and divorces. If the respondent reports she did live with a partner for 3 months or more during the gap, the month and year of the start and end date of the cohabitation if it had ended were recorded, and for those that had not ended, respondents were asked whether or not they lived together continuously and whether or not they had subsequently married the partner. It was possible for respondents to report on multiple cohabitations lasting 3 months or more during a given gap, but the most reported was 2. Given all of this retrospective data, we coded the *partner number* and *partner relationship code* variables in missing years between the years of 1970 and 2004 for the full sample of mothers, and based on this coding, we corrected

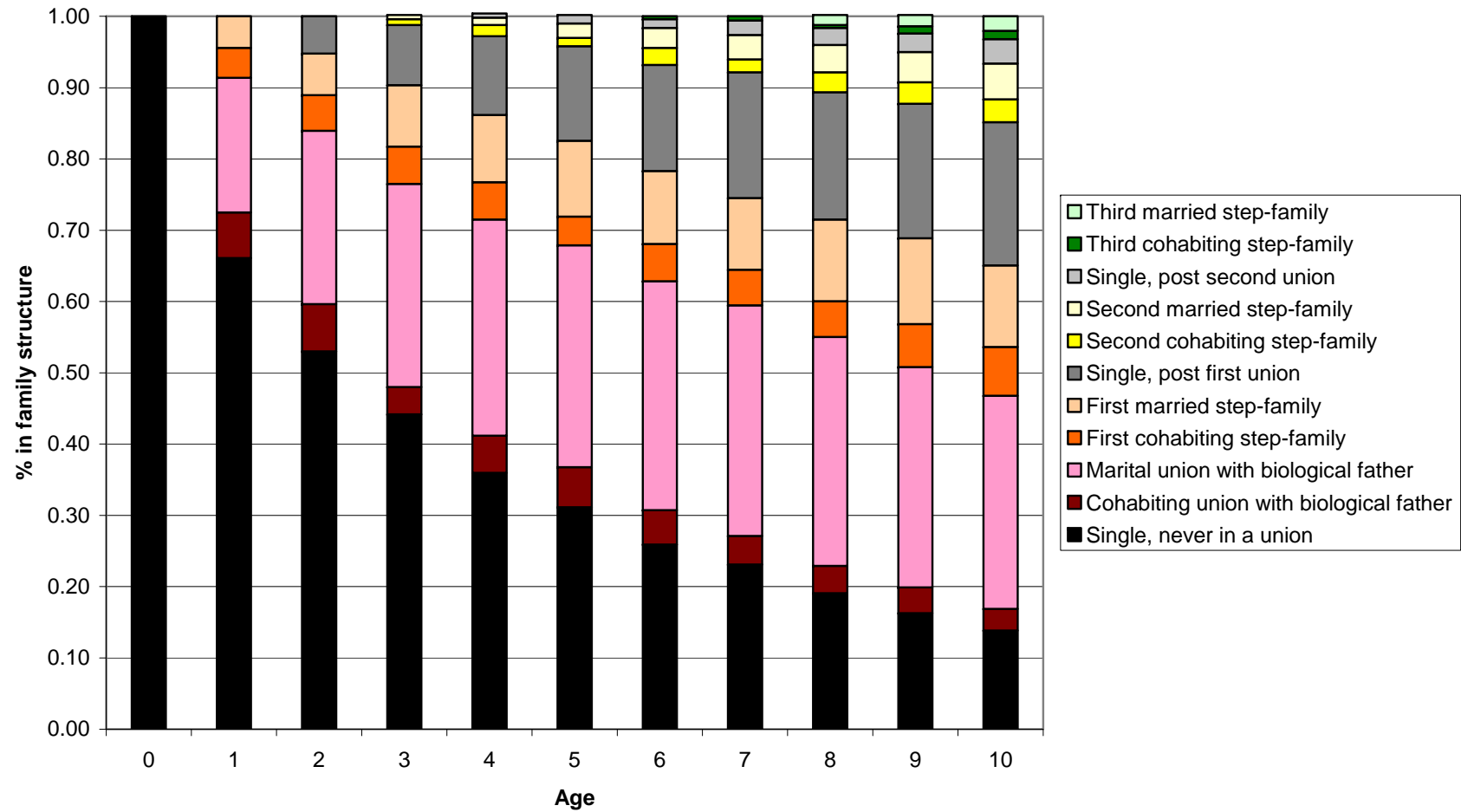
subsequent instances of the *partner number* variable if the NLSY missed a relationship (note, in all cases prior to 2000, the only missed relationship measured was cohabitation).

Figure 1. Diagram of the 11 Living State Multistate Model of Family Transitions

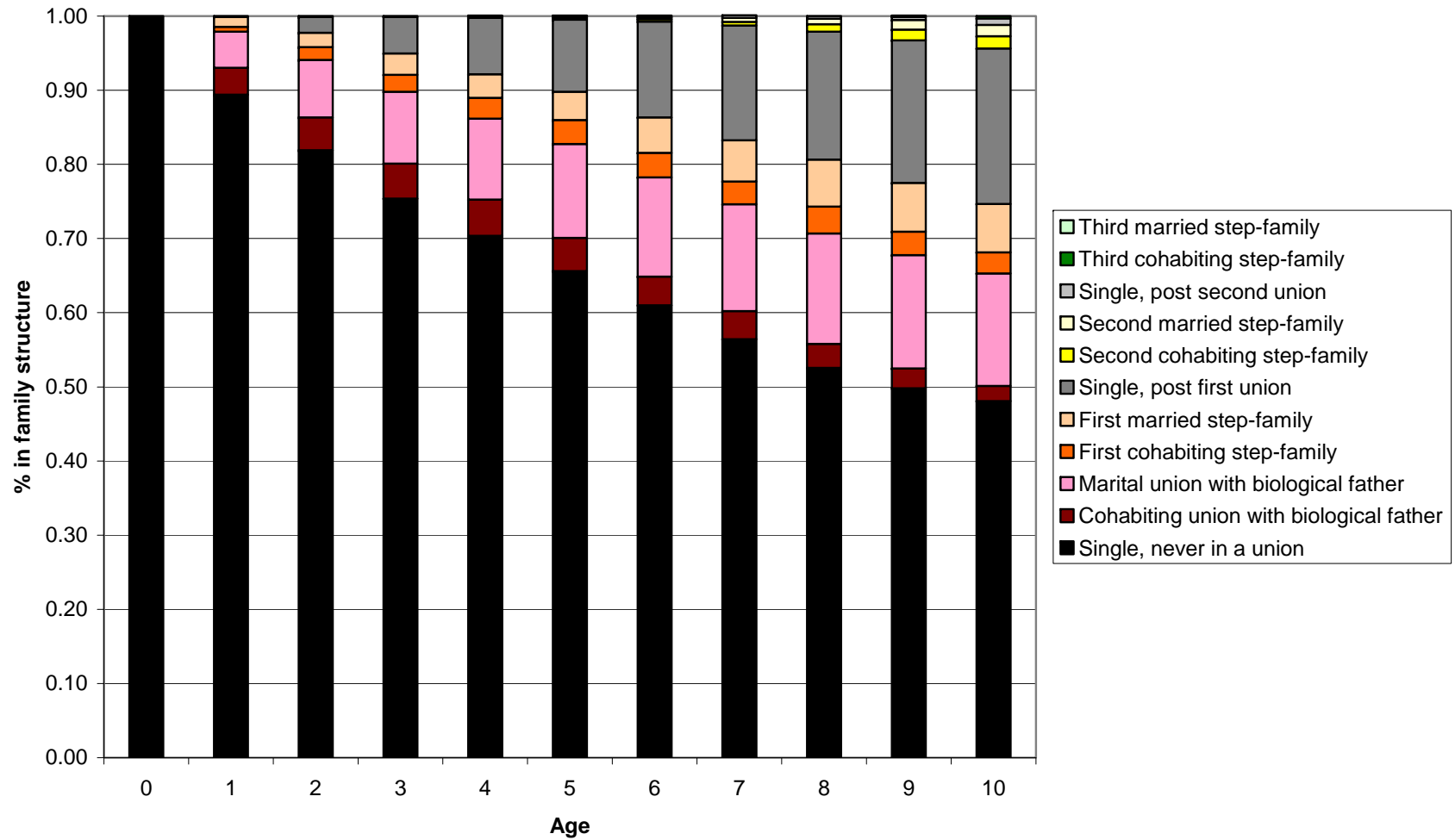


Note: There are 9 model states, 2 absorbing states (3rd union with cohabiting father and 3rd union with married step-father), and 14 possible transitions.

Figure 2. Family Structure from Birth to Age 10 for Non-Black/Non-Hispanic Children born to Single Mothers
(n = 498; Source data: NLSY 79)



**Figure 3. Family Structure from Birth to Age 10 for Black Children born to Single Mothers
(n = 1,654; Source data: NLSY 79)**



**Figure 4. Family Structure from Birth to Age 10 for Hispanic Children born to Single Mothers
(n = 443; Source data: NLSY 79)**

