ABSTRACT: Parental Unions, Financial Transfers, and Adolescent Cognitive/Academic Performance *

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Recent demographic shifts are associated with an increase in the number of children raised by parents whose unions have dissolved, who typically live with only one of the biological parents. Rising rates of unwed motherhood (Bianchi 1999) and cohabitation (Smock 2000) have increased the risk that children are born into single parenthood. Divorce rates remain high (Goldstein 1999) and continue to push many children into single parent families even when they are born into a marriage (Bumpass, Sweet and Martin 1990). Children of divorces, dissolved cohabitations, and dissolved short-term relationships seem to have shared disadvantages relative to children whose parents are continuously married. Many studies indicate that children who either live with a single parent or with a biological parent and a stepparent are not as well off as children who live with both biological parents in their first marriage (e.g., McLanahan, Seltzer, Hanson, and Thomson 1994). Each of the three groups of children are most likely exposed to distinct sets of processes that compromise their well-being (Cherlin, Furstenberg, Chase-Lansdale, Kiernan, Robins, Morrison, and Teitler 1991). However, they also share processes, such as poor parental socioeconomic status (e.g., Axinn, Duncan and Thornton 1999; Smock and Manning 1997). Other than studies that point to parental socioeconomic status, few have systematically investigated shared factors that compromise the well-being of children of dissolved unions.

Some theories suggest two additional, but contrasting, shared factors. Proponents of a subset of economic and evolutionary theories (e.g., Lillard and Willis 1997; Anderson, Kalpan and Lancaster 2001) note that a parent composition that includes a step-parent is the source of the disadvantage because: a) step-parents invest less in children than do biological parents; and b) investments by step-parents yield smaller returns in child well-being than do similar investments by biological parents. For example, the parental repayment hypothesis suggests that biological parents, who rely on the family financial market (Lillard and Willis 1997), have vested interests in providing resources and monitoring the outcome of their investments, which would hopefully yield high well-being in children and ultimately maximize repayments from children to parents. An evolutionary theory suggests that parents providing resources and heavily monitor resource use by children to insure that their genetic copies (i.e., biological children), rather than others, flourish (e.g., Anderson et al. 2001; Trivers 1972).

In contrast, proponents of a structural theory of the family (e.g., Furstenberg, Hoffman, and Shrestha 1995) suggest that parental union type (e.g., unions other than first marriage) rather than parent composition/type is the source of the disadvantage (Becker, Landes and Michael 1977; Cherlin 1978; Smock and Manning 2000). Proponents of a structural theory suggest that transfers to children are institutionalized in the family in which the children are born (Engels

1922). When parents undergo the dissolution of a union, the non-resident parent is simply "swapped" with a step parent while the structure of intergenerational transfers remain the same (Furstenberg et al. 1995, Manning and Smock 2000). In other words, when a non-resident biological parent is supplanted by a resident step-parent, the step-parent tends to provide resources to children in the same manner the biological parent did. However, unions are structured differently with respect to parenting. Parental union type can affect parental transfers to children and its impact on child well-being in two ways: a) by displacing children from a union in which resident parents had incentives to invest in the children; and b) by placing children in unions with poorly institutionalized parenting roles.

In this paper, we test two primary competing hypotheses: a) biological parents transfer more money to children than do step-parents and the transfers are more beneficial to the child's academic well-being; and b) differentials exist by parental union type but not by parent type--parents transfer more money to children and their dollar transfer yield more child well-being when they are in first marriages than when they are in unions other than first marriage, such as a remarriage, a marital history intermarriage (e.g., father previously divorced and mother previously never married) or a cohabitation. We use the first three waves of the National Longitudinal Survey of the Youth, 1997-2001, to test the competing hypotheses.

Data and Methods

The NLSY97 is a biannual survey of a nationally representative sample of a new cohort of youth that is modeled after the NLSY79. In 1997, the NLSY97 collected information from approximately 9,000 children between age 12-17 at the first wave interview.

Dependent Variables. Two dependent variables will be analyzed. The first dependent variable is total annual income from parent(s) at age 17, asked when the youth is age 18. This dependent variable measures money transfers from parents in the previous year. Age 17 is selected primarily due to constraints imposed by data availability. In each wave, the NLSY97 collects information on the amount of any money received from parents in the previous year for children who are "independent"—at least age 18, live with a partner, or are parents themselves. All of the NLSY97 sample will be at least age 18 by the third wave.

The second dependent variable is a test score asked two years later (at age 20) to measure children's cognitive/academic well-being as young adults. Specifically, Armed Services Vocational Aptitude (ASVAB) test scores will be used. There are twelve components to this test, including arithmetic reasoning and word knowledge.

Covariates. In the analysis of money as the dependent variable, *parent composition/type* at wave t-1 consists of five categories: lives with two biological parents, biological mother only, biological father only, biological mother-step-father, and biological father-step-mother. The latter four categories will be subdivided into two further categories by whether the custodial parent or the child has contact with the non-resident parent. Some categories may be collapsed where appropriate if there are consistent lack of difference between the categories.

Many of the "independent" NLSY97 children will be living apart from their parents at the time of the survey. For these children, parent composition of the family in which the child lived until he or she moved out will be used to indicate and track parent composition. A control variable indicating that the child is not living with a parent will be included.

A wide range of comparisons can be made to assess the relative money contributions from step- and biological parents. For example, to test whether a step-parent transfers fewer resources

to children than does a biological parent, the amount of money given to children from two biological parents could be compared against the amount of money from parents in a step family.

Shifts in parent composition/type over time will also be measured with *changes in parent composition between waves t-1 and t*. Eight dummy variables will track the contact status of a particular parent type: addition/subtraction of a resident step-mother, addition/subtraction of a resident step-father, subtraction of resident biological mother, subtraction of non-resident biological mother, subtraction of a resident biological father and subtraction of a non-resident biological father. With these variables, the increase or decrease in the amount of money children receive with the addition/subtraction of a biological or a step-parent can be assessed. To measure the current parental status and characteristics, other covariates will be measured at wave t rather than at wave t-1 if parent composition changes between waves.

Union type of the custodial biological parent at wave t-1 or t (if change in parent composition) consists of two variables: children born in the union and current union status. The variable "children born into the union" will consist of three categories: "born in the union," "born outside the union," "parents not in a union." Current union type of the custodial parent will consist of five categories: "first cohabiting union," "second+ cohabiting union," "first marital union," "marital history interemarriage," "second+ marital union" and "not in a union"

Four types of control variables will be included. First, regressions will include *mother(s)'s and father(s)'s socioeconomic and demographic characteristics*, such as age, race, employment status, and support payment ties to former spouse. Each of these variables will contain an "inapplicable" category for those who do not have a parent of that type. Second, regressions will include *children's socioeconomic and demographic characteristics,* such as age, sex, school enrollment status, sibship, marital status, pregnancy status and coresidence status with parents. Third, *relationship qualities* will be included, such as measures of parental conflict over a variety of dimensions (e.g., chores, how to raise children, money, and leisure). Measures of parent-child relationship can be constructed from knowledge about children's friends (NLSY97). Finally, regressions will control for contextual conditions, such as crimes in the neighborhood. Child custody/support policies in the state of residence will also be drawn from Orbuch, Stewart, and Cancio (2002).

Equations. Tobit equations will be applied to the two subsamples of children: a) children of intact first marriage/cohabitation plus children whose biological parents divorced; and b) children of intact first marriage/cohabitation plus children whose biological parents dissolved a non-marital union, which could range from a cohabitation to a short-term relationship. Tobit models are useful to account for observational censoring at zero (Maddala 1983). In particular:

$$Y_{i,t} = \beta_0 + \sum \beta_j PC_{i,t-1/t} + \sum \beta_k U_{i,t-1/t} + \sum \beta_l CONTROL_{i,t-1/t}$$

where Yi,t is the money received from parents for child i at wave t. PCi,t-1/t is parent composition of child i at wave t-1 or change in parent composition between waves t-1 and t. Ui,t-1/t is one of the two union type measures. CONTROLi,t-1/t is a control variable for child i at wave t-1 or t.

OLS equation is used to estimate the impact of money transfers from parents on the academic well-being of children, applied separately to the two subsamples of child-year, includes:

$$Y_{i,t} = \beta_0 + \sum \beta_j MONEYPAR_{i,t-1/t} + \sum \beta_k PC_{i,t-1/t} + \sum \beta_l U_{i,t-1/t} + \sum \beta_m MONEYPAR_{i,t-1/t} * PC_{i,t-1}$$
$$+ \sum \beta_n MONEYPAR_{i,t-1/t} * U_{i,t-1/t} + \sum \beta_o CONTROL_{i,t-1/t}$$

where Yi,t is a test score for child i at wave t, MONEYPARi,t-1/t is money from parents at wave t-1 or t, PCi,t-1/t is parent composition for child i at wave t-1 or t, and Ui,t-1/t is a measure of union type for child i at wave t-1 or t. MONEYPAR i,t-1/t*PCi,t-1/t is an interaction term between money from parents and parent composition. MONEYPARi,t-1/t*Ui,t-1/t is the interaction term between money from parents and union type.

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