**Head Start Participation and Nonresident Father Involvement**

Louis Donnelly, Rutgers University
Lenna Nepomnyaschy, Rutgers University

Head Start's model for parental engagement aims to ameliorate disadvantages of children from low-income families by enriching relationships and interactions between these children and their parents. Influenced by ongoing research that emphasizes the benefits of father involvement, recent Head Start policy objectives seek to break down barriers to father participation and enhance fathers' overall involvement in the lives of their children. However, fathers of low-income children are increasingly likely to be unmarried and reside outside the home. More than half of children who participate in Head Start do not live with their biological father, approximately twice the rate in the general population, and these nonresident fathers face unique barriers to participation and involvement. Understanding how these nonresident fathers stay involved with their children before, during, and after their children participate in Head Start has important implications for policy evaluation and research on nonresident father involvement.

Head Start may promote nonresident father involvement through two mechanisms. Directly, programs are expected to make contact with and actively recruit nonresident fathers to participate in program activities. Research shows that greater father participation in program activities often translates into more sustained father involvement. Indirectly, educational support services provided to mothers are expected to include components that promote mothers' appreciation for and willing to foster stronger relationships between children and fathers. As such, children in Head Start may benefit from enhanced father involvement even if the father never participates in program activities.

Unfortunately, little is known about levels of nonresident father involvement among children in Head Start or how these levels compare to similar fathers of children in alternative child-care arrangements. While several studies suggest that mature Head Start programs increase father participation in program activities, no study has used nationally representative data to estimate trajectories in nonresident father involvement for children served by the program. Early Head Start evaluation data show relatively high levels of nonresident father engagement when children are very young. However, it is widely documented that nonresident fathers tend to become less involved as children grow older. If Head Start is effective at fostering nonresident father involvement, we would expect to see less of a decline over time, or perhaps even an increase in father involvement among families served by the program. Moreover, because the service delivery model relies greatly on mother-father contact, we hypothesize that these effects may be stronger for families with positive mother-father relationships. This study tests these hypotheses by using multilevel growth-curve models to compare group trajectories in nonresident father involvement.

*Data*

Data for this study is obtained from the Early Child Longitudinal Study Birth-Cohort (ECLS-B), a nationally representative sample of approximately 10,000 children born in the US in 2001and followed through Kindergarten entry. ECLS-B is an ideal source of data for this study because it includes substantial variation in child-care arrangements among families with nonresident fathers and measures socio-demographic characteristics of the child, mother and father at birth and the years following. Children in ECLS-B are also approximately pre-school age shortly before new Head Start fatherhood initiatives were introduced in 2004. The current study includes approximately 1,000 children who lived with their biological mothers and had a living nonresident biological father at the time of the three follow-up interviews.

*Measures*

When children were approximately 2, 4 and 5 years old, mothers reported on various dimensions of father involvement. Two measures are evaluated in this study: (1) *accessibility* – number of days father saw child in the past month; (2) *responsibility* – average score on four questions assessing father's influence in decision making about child's health, nutrition, child care, and discipline. In the second follow-up interview, when children were approximately 4 years old, mothers were asked to describe child-care arrangements. Subjects were recorded into three groups: any Head Start, any other center-based care, or no center-based care. At this time, mothers also described the quality of their relationship with the father and subjects were categorized as either positive or no/negative relations. In order to mitigate selection bias, a rich set of family socio-demographic controls (measured at birth and at each wave) were also included in the analyses.

*Analytic Approach*

This study utilizes a multilevel growth-curve model to assess group differences in trajectories of nonresident father involvement with children over time. This approach is an extension of the multilevel random-coefficient model with observations nested within subjects, allowing the intercept and a time-period coefficient to vary randomly between subjects. A cross-level interaction term is included in all models that accounts for the interaction between time-period (measured categorically) and child-care arrangement (Head Start, other-center based care, no center based care). This approach is more efficient than a series of OLS regression models with lagged dependent variables because it allows us to estimate involvement at each time period and assess group differences in trajectories. More specifically, we can evaluate if those children who participated in Head Start experience a steeper rate of growth in father involvement. The proposed model would take the following two-stage form:

The Level 1 model represents the estimated within-person change over time of father involvement and the effects of time-varying demographic predictors of this change.

$$Y_{\text{ij}} = \beta_{0j} + \beta_{1j} Char_{ij} + \beta_{2j} Time_{ij} + \varepsilon_{ij}$$

$Y_{\text{ij}}$ is the predicted level of father involvement for person $i$ at time $j$, $Time_{ij}$ is the value of time for person $i$ at time $j$, and $Char_{ij}$ represents time-varying family socio-demographic characteristics.

At Level 2, the time invariant variables predict the parameters estimated at Level 1.

$$\beta_{0j} = \gamma_{00} + \gamma_{01} Dem_j + \gamma_{02} HS_j + \zeta_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20} + \gamma_{21} HS_j + \zeta_{2j}$$

$Dem_j$ represents time-invariant family demographic characteristics and $HS_j$ represents participation in Head Start (or two alternative child-care arrangements). The inclusion of $HS_j$ in the model that predicts $\beta_{2j}$ allows for the interaction between Head Start participation and time. The error terms $\zeta_{2j}$ and $\zeta_{2j}$ represent individual differences in the Level 1 parameters that are not explained by the Level 2 predictors. Because growth trajectories are likely to depend on baseline involvement, model estimations specify an unstructured covariance matrix that allows covariance between the intercept and time coefficient. We also hypothesize that mother-father relationship quality will moderate the influence of Head Start on father involvement. Therefore, supplementary models will also include an interaction term between child-care arrangement and mother-father relationship quality (not shown in model specification above).

*Preliminary Results*

Descriptive results indicate that children who participated in Head Start benefit from higher levels of father involvement before, after, and during participation in the program. These results are consistent with previous research showing high levels of father involvement among Early Head Start participants. Next, preliminary analyses relied on a fully controlled OLS regression model with a lagged dependent measure of father involvement at Year 2 to predict father involvement at Year 5. Results show that Head Start participation was associated with increases in nonresident father involvement, as compared to other child-care arrangements, but only for families with positive parental relations. For these families, Head Start participation is associated with a 1.9 and 1.0 day increase in father contact (over past month), and 0.28 and 0.34 standard deviation increase in father responsibility, as compared to center-based care and no center based care, respectively. For families with poor parental relations, Head Start participation is not associated with father involvement. These preliminary analyses are largely consistent with the

stated hypotheses and suggest that the multilevel growth-curve models described above will likely reveal variable group trajectories dependent both on parental relations and participation in Head Start. Inclusion of additional time-varying covariates in these models will likely further minimize unobserved heterogeneity and make possible group estimation of involvement at each time period.