

Two-Generation Education Interventions for Low-Income Mothers and their Young Children

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Early Childhood Education

Drawing on research on the connections between parent human capital, child human capital, and mobility, interest in one strategy to alleviate intergenerational poverty has increased over the past decade among program administrators, policymakers, and researchers: simultaneous investment in children's and parents' education (Chase-Lansdale & Brooks-Gunn, 2014; King, Chase-Lansdale, & Small, 2015). Two-generation human capital interventions serve low-income children and parents in the same family with a single program rather than siloed programs. Such programs hold the dual aims of helping parents to advance in their education and careers and helping children to enter school prepared, thereby interrupting the intergenerational transmission of poverty.

Two-generation interventions typically target children in early childhood education programs, including the federal Head Start program, which offers educational, health, nutrition, and social services to low-income children and their families. In fact, Head Start, with its whole-family approach to serving low-income families, considers itself the original two-generation program, though it has generally focused more on developing parenting skills than promoting parental education (Chase-Lansdale & Brooks-Gunn, 2014; Sommer et al., 2016). Momentum has grown within the Head Start community in recent years though to expand intentional two-generation programming from a base of high-quality early childhood education, and evaluations of such programs are now being conducted to inform policy and practice (Chase-Lansdale et al., under review; Sommer et al., 2016).

Two-generation theory posits that dual-generation investment in child and parent human capital will be more effective at promoting children's skill development and, ultimately, upward mobility compared to single-generation child or parent interventions. Two-generation human capital interventions have the potential to create three distinct types of benefits. First, through single-generation, direct effects, the child intervention can lead to improved skills among children and the parent intervention can lead to greater parental human capital term (Carneiro & Ginja, 2014; Currie & Thomas, 1995, 2000; Deming, 2009; Garces, Currie, & Thomas, 2002; Hendra et al., 2016; Ludwig & Miller, 2007; Maguire et al., 2010; U.S. Department of Health and Human Services (HHS), 2010, 2012). Second, there may be cross-generation effects, such that a parent's school enrollment benefits the child and the child's school enrollment benefits the parent (Gelber & Isen, 2013; Gennetian, Magnuson, & Morris, 2008; Guryan, Hurst, & Kearney, 2008; Kalil, 2015; Kalil, Ryan, & Corey, 2012; Magnuson, 2007; Sabol & Chase-Lansdale, 2015). Third, there may be complementarities between parent and child education, whereby each single-generation investment is more effective when it is made concurrently with the other investment. That is, a child may benefit from school by more if his or her parent is also enrolled in school, and vice versa. The current literature provides evidence of the first two types of benefits—single-generation and cross-generational—but there is no known investigation of the third potential benefit.

This study capitalizes on national, experimental Head Start Impact Study data (HSIS; U.S. Department of Health and Human Services (HHS), 2002-2006; Puma, Bell, Cook, & Heid, 2007-2008) to investigate whether investments in low-income children and their mothers can be complementary. Both a mother's decision to enroll in school and the decision to enroll a child in Head Start are driven by observed and unobserved characteristics that are related to the mother's and the child's human capital development and parenting. For example, mothers who are particularly motivated towards career advancement may seek out additional education or job training, and mothers who place high value on their children's education may send them to Head Start. Given the randomized nature of Head Start participation in the HSIS sample, and the balance that was achieved between the treatment and control groups at baseline (HHS, 2010), comparisons of the treatment and control groups post-treatment represent estimates of the causal impact of Head Start. The study uses HSIS data to take advantage of this randomized variation in Head Start access, leaving selection into education among mothers as the main impediment to causal inference. Using an extensive set of child, mother, and family characteristics measured at baseline (i.e., the start of the Head Start year) as matching variables, a multinomial logit model is used to estimate the likelihood of being in each of four groups: (1) Head Start treatment group, mother enrolled in school; (2) Head Start treatment group, mother not enrolled in school; (3) Head Start control group, mother enrolled in school; and (4) Head Start control group, mother not enrolled in school. A propensity score is created based on these probabilities, using the likelihood of being a part of the group a family was actually in, and inverse probability weights are created by taking the inverse of this probability. Balance between the four groups is greatly improved after applying these inverse probability weights.

Preliminary findings suggest that mothers make greater gains as a result of participation in education or job training during the Head Start year if their children have access to Head Start, with an increased likelihood of holding a high school diploma, GED, or higher and a greater likelihood of employment at the end of the child's third grade. At the same time, children receive larger and lasting socioemotional benefits from Head Start access if their mothers attend school or job training during the Head Start year, with more prosocial behavior and lower levels of behavior problems through third grade (Achenbach Classroom Behavior Checklist), though no differences are observed on cognitive outcomes (receptive vocabulary, literacy, and mathematics skills measured with the Peabody Picture Vocabulary Test, Woodcock-Johnson Letter-Word Identification Test, and Woodcock-Johnson Applied Problems Test, respectively). Parenting appears to link children's Head Start access, mothers' school or job training, and child outcomes. Head Start access increases engagement in enrichment activities only among mothers enrolled in school or job training, and increases closeness between children and these mothers. These findings have implications for a burgeoning field of anti-poverty programming: intentional two-generation interventions based in Head Start.

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