Head Start's Intergenerational Potential: Do Program Impacts Vary by Mother's Head Start Participation?

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The Head Start program has enrolled more than 31 million children since its 1965 establishment, at an annual cost of nearly $8 billion. The program represents a major federal intervention in the market for early childhood education and care and as such its effects must be well-understood by researchers and policy practitioners alike. In particular, Head Start's impacts on different subgroups of participants can be informative when making policy decisions regarding the program's future. In this paper, I investigate Head Start's effect on the cognitive and socioemotional skills of participants whose mothers participated in Head Start as children. I find that the children of "Head Start mothers" receive larger treatment effects from the program, and that this extra benefit is likely driven by larger improvements to Head Start mothers' parenting practices. I confirm with secondary analyses that this is a Head Start-specific phenomenon, rather than driven by participation in any type of preschool.

Rich, experimental data facilitate this investigation. I am able to use the 2002 Head Start Impact Study (HSIS) data to derive causal estimates of the program's impacts on children's cognition and socioemotional well-being as well as on parents' behavior. The HSIS randomly assigned 4,442 children from a three-year-old cohort and a four-year-old cohort of first-time participants to treatment (Head Start services) or control (no Head Start services), and tracked their progress through third grade. I have access to data that follow study participants through first grade.

Using the HSIS data, I ask whether the children of Head Start mothers receive the same treatment effect from the program as the children of non-participants (non-Head Start mothers). I find that the children of Head Start mothers receive larger programmatic impacts, particularly in terms of their cognitive skills. The children of Head Start mothers receive statistically significantly larger, positive effects on the Parent-Reported Emergent Literacy Scale (PELS) as well as the Woodcock Johnson-III Brief Achievement, Preacademic Skills, Spelling, and Word Identification tests measured at the end of the Head Start year. They continue to receive statistically significantly larger, positive effects on the Woodcock Johnson-III Brief Achievement, Preacademic Skills, and Word Identification tests one year after Head Start participation and on the Woodcock Johnson-III Brief Achievement and Preacademic Skills tests two years after participation. The children of Head Start mothers also receive extra benefits from the program in terms of their relationships to their caregivers, their levels of hyperactivity, and their approaches to learning, compared to the children of non-Head Start mothers.

After documenting the larger treatment effects received by the children of Head Start mothers, I explore three potential mechanisms by which they might receive a larger benefit from the program: changes in maternal employment, maternal education, and parenting practices. I find no evidence that Head Start mothers' employment or education levels change by more than those of non-Head Start mothers. However, I find evidence that Head Start mothers themselves receive a larger treatment effect from the program as adults, whereby their parenting practices improve by more than other mothers. Head Start mothers are more likely to increase their daily engagement in literacy practices than non-Head Start mothers at the end of the Head Start year and one year after the program's completion, suggesting that these improved practices interact with the preschool program to induce larger increases in children's cognitive and socioemotional skill formation. Interestingly, Head Start mothers actually begin the program year with better parenting practices than their non-Head Start counterparts despite being more disadvantaged in terms of markers of socioeconomic status (income, race, education).

Next, I ask whether this phenomenon is exclusive to Head Start, or generalizes to all types of preschool. Unfortunately, the HSIS data do not document whether mothers participated in any type of preschool other than Head Start. Consequently, I use the National Longitudinal Survey of Youth (NLSY) 1979 and the Children of the NLSY datasets to perform further analyses. I first attempt to replicate the results of the HSIS analyses, investigating whether (1) Head Start participants who are the children of Head Start mothers have better cognitive outcomes than participants who are the children of non-Head Start mothers (when compared to non-participants) and (2) whether Head Start mothers of participants display better parenting practices than non-Head Start mothers of participants (when compared to mothers of non-participants). Given the more affluent sample in the NLSY, Head Start participation is associated with poorer PPVT, PIAT Math, PIAT Reading Recognition, and PIAT Reading Comprehension scores. However, having a Head Start mother appears to have a buffering effect whereby participants who are the children of Head Start mothers do less badly compared to non-Head Start participants than do participants who are the children of non-Head Start mothers. Similarly, HOME scores in households with Head Start participants who are the children of Head Start mothers are not as low compared to households of non-participants than the scores in households with Head Start participants who are the children of non-Head Start mothers. So, the phenomenon displayed by the HSIS data appears to exist in the observational NLSY data, too. In contrast, when performing the same analyses for the preschool participant children of "preschool mothers," the same buffering effect does not emerge. Therefore, it seems to be a Head Start-specific phenomenon.

This paper serves as the first exploration of dual-generation Head Start participation, and suggests the potential for the use of the Head Start program as a new type of two-generation intervention, benefiting children's skill formation through preschool participation and the enhanced parenting skills of

Head Start mothers. It offers suggestive evidence that Head Start may have long-lasting impacts by improving baseline parenting skills upon which new parenting skills are built while the child participates in the program, and creating intergenerational effects.