

Putting Head Start Research Into Action: How to Use the Findings From Three Major National Studies to Improve Program and Child Outcomes

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Heid: The Head Start Impact Study employed a randomized research design where children were randomly assigned to a treatment group or a control group. In the treatment group, about 90% of the children were enrolled in either Head Start or another center-based program. In the control group, there were three subgroups: (a) children not allowed to enroll in Head Start, although some of them did manage to get in, (b) children whose parents found other available services for them, or (c) children who had at-home care with their parents.

Results include: 1) cognitive domain--3-year-old cohort-- small positive impact on vocabulary as measured by the PPVT and a color-naming task; 3- and 4-year-old cohorts-- small positive impact on prereading and prewriting skills; moderate positive impact on parent reports of children's literacy skills; no significant impacts for oral comprehension, phonological awareness, or early mathematics skills. 2) social-emotional domain--3-year-old cohort-- small impacts on reducing reported problem behaviors, in general, and hyperactive behavior, in particular; no statistically significant impact on social skills and approaches to learning or social competencies; 4-year-old cohort-- no significant impact in this domain. It is important to note that all of these were measured from parent reports. Teacher reports will be obtained as the children enter kindergarten and 1st grade. 3) health domain--3-year-old cohort-- small positive impact on parent reports of children's health status; for both 3- and 4-year-olds-- moderate positive impact on parent reports of access to dental care. 4) parenting practices domain-- 3-year-old cohort--small positive impact from parents' reading to their child and involvement in enrichment activities; small impact on the reduced use of physical discipline, meaning reduced use of timeout and spanking; no significant impacts on safety practices; 4-year-old cohort--small impact on parents reading to their child and no impact on physical discipline or safety practices.

In the analysis of the children's experiences in both age cohorts, Head Start children were twice as likely to have attended a center-based program. Control group children were five times more likely to have been exclusively in parent care and Head Start children were more likely to have been in the same study in both Fall 2002 and Spring 2003, showing consistency in the Head Start center. Children in Head Start centers were in higher-quality environments. Their centers had more positive ratings of teacher-child interactions, as measured on the scale of lead teacher behavior; more frequent use of an instructional curriculum of activities to enhance children skills, as reported in the teacher survey; and higher scores on the Early Childhood Environment Rating Scale, Revised Edition (ECERS-R).

There are several study implications. First, Head Start is helping to bolster the school readiness skills of children from families with low incomes, particularly in the areas of letter and word identification where children showed gains towards the national norm. Second, areas of early math skills, phonological awareness, and oral comprehension seem in need of

particular attention. Third, vocabulary showed mixed results: significant for the 3 year olds and not significant for the 4 year olds. A more definitive finding should be available at the end of the study or at the end of the 1st grade year for the children. Fourth, in the social-emotional domain, the impacts of Head Start on child social-emotional development and achievement in early elementary school are still to be determined. Teacher reports of social-emotional development for all children were not available in the preschool years, but will be available for the kindergarten and 1st-grade years. Fifth, Head Start has a positive impact on parents' reading to their child, an important factor in a child's cognitive and social-emotional development. Head Start should continue to foster learning activities between the parent and child, with perhaps more emphasis on early math activities. Sixth, Head Start seems to be meeting a need for families with low incomes who want center-based childcare. Lastly, there should be continued emphasis on program accountability, implementation of Head Start program performance standards, and the application of evidence-based interventions in order to help make Head Start even more effective.

Zill: The Family and Child Experiences Survey (FACES) is a mechanism for generating longitudinal information about program performance of Head Start. It is based on national stratified probability samples of Head Start programs or classrooms, families, and children, and includes direct assessments at the start and end of Head Start of children both 3 and 4 years of age and also at the end of kindergarten. It is not an experimental or randomized study of the impact of Head Start. It also is not a study of specific interventions designed to improve Head Start. Sample programs are not selected on the basis of their curriculum or their quality. It is a probability a sample of what exists in Head Start, and each of the cohorts has been an independent sample. Therefore, the findings from FACES are correlational and suggestive, not definitive. However, we can learn things from correlational studies. If that were not the case, the entire field of economics could be thrown out. Correlational studies can be particularly valuable when we find a lack of relationship or a lack of expected differences.

For findings across the FACES cohorts, in particular, change in programmatic emphasis, what evidence do we see in terms of program practices, classroom quality, teacher qualifications, child cognitive outcomes, and the relationship between program quality and outcomes? The two most popular curricula in Head Start, Creative Curriculum and High Scope, have both been revised for more emphasis on literacy activities. The FACES data show that the most popular curriculum, namely Creative Curriculum as revised, has become even more popular in the last few years. Based on self report, Head Start teachers say that they are spending more time in the classroom on literacy activities. There was a significant increase in the reported frequency of reading, letter names, writing, and phonics activities between FACES 2000 and FACES 2003. There was no particular increase in vocabulary building. Finally, there has also been an increase in reported reading with children or to children. So there have been some significant differences in activities as reported by teachers.

To assess classroom quality and teacher qualifications, three widely-used measures were employed: (a) the Early Childhood Environment Rating Scale, Revised (ECERS—R), a global rating of classroom quality; (b) an Assessment Profile, an assessment of classroom and teaching practices; and (c), the Arnett Caregiver Interaction Scale, a rating of teacher behavior toward children in the classroom.

High levels of quality have been maintained. The average program has an ECERS rating just below “Good,” where 3 is “minimal”, 5 is “good”, and 7 is “excellent. Educational credentials of Head Start teachers have increased, but the percentage with BA degrees or more remains below that found in public school preschool programs. The percentage of teachers with at least an AA degree has gone up from 58% to 72% in the three cohorts and the proportion with a BA degree or higher has increased from 28% to 38%. However, virtually all the teachers in public preschool programs have BA degrees or higher.

Regarding trends and trial outcomes, the number of letters known by students has increased across the three cohorts. The student’s knowledge of vocabulary, writing, and math increased modestly every year, but significantly during the year they attended Head Start. Standard scores increase as they approach national norms, but these are relatively modest increases. There is no evidence in FACES that the gains in vocabulary and math have increased across the three cohorts. In 1997, the children knew about three letters at the beginning of the year and seven letters by the end of the year. By 2003, they knew four letters at the beginning of the year and 10 letters by the end of the year, which matches the congressional mandate of about 10 letters or more.

Regarding the relationship between quality and outcomes, the quality on average, is good. However, when data from FACES in multilevel models are analyzed, and children’s background, family characteristics, classroom characteristics, and program quality are controlled, there is not much relationship between quality, as traditionally measured, and the size of the gains that children make in Head Start. This may be partly due to the limited range of quality.

Teacher qualifications are increasing. Some links have been found between teacher qualifications and teacher beliefs and quality measures. However, generally speaking, strong relationships in FACES between teacher credentials and child outcomes were not found. The special circumstances of Head Start may be partly responsible for that, namely, if the teacher obtains a BA, she often leaves Head Start to go to a public school program where the salary is higher. Teachers who have AAs or less tend to be highly experienced veteran teachers. Other recent studies have found that the relationship between teacher-credentials and children’s gains are not as strong as they are often thought to be.

Examining the gains in kindergarten, in FACES 1997 and 2000, Head Start graduates showed continued gains toward national norms during the kindergarten year. This is still being analyzed in FACES 2003, which includes broader (beyond kindergarten), composite measures of reading skills, math skills, and general knowledge. If one thinks of Head Start preparing children to be ready for kindergarten, clearly they are making gains in kindergarten. The Impact Study should shed some light as to whether this continued gain is a result of the impact of the Head Start experience.

There are three key implications. First, there is evidence that increased emphasis on early literacy skills is having an influence on program practices and some outcomes. It is shown by this and judged by a correlational study. As a result, there have been major revisions in the

leading curriculum (Creative Curriculum), increased use of this revised leading curriculum, increases in teacher-reported literacy activities, and increases in children's letter knowledge. Second, an increased emphasis on early literacy skills has not resulted in greater gains in vocabulary and math skills. There has been no increase in teacher-reported vocabulary activities, and the gains, which have remained there, have not increased over the three cohorts. Third, as far as general classroom quality is concerned, good quality has been maintained and there are more teachers with AA and BA degrees. However, these do not seem to be sufficient in themselves to produce greater gains.

Mann: To make a difference through research at the program level, programs must be integrated and involved—participating and benefiting—because one cannot improve what one does not understand, and there is much to be understood. There have been rich research-to-practice pieces developed that unpack the findings from a programmatic perspective, and there has been transition and change in these programs. It is important to keep going back to them, making certain that findings are shared with new people as they come in.

The Early Head Start study was a randomized control trial of about 3,000 children and families, approximately half being in the treatment group and half being in the control group. In the process of looking at the impact findings, it was noted that Early Head Start was making a difference in the lives of very young children. First, there was a broad pattern of positive impacts across domains (social-emotional, cognitive, language, and health) for program children at 24 and 36 months of age. Second, program parents demonstrated more behaviors that supported children's learning and well-being than control parents. Third, program parents demonstrated greater involvement in self-sufficiency activities than control parents.

When looking at the data at 36 months, it shows the model mattered, although there were different patterns of results depending upon whether children were getting Early Head Start services in a home setting versus a center setting or a combination of the two. Impact was a function of implementation; programs that were more successful in being implemented early had better outcomes for young children. When looking across all of the subgroups, 28 of the 29 yielded patterns of positive effects. The families in the 29th group were at highest risk because of the number of demographic risk factors they had; that group did not do as well. It is important to understand what it is being implemented at the program level, be attentive to who the families are who are being served, and capture enough information to provide a picture of some of the challenges they face. Services should be individualized so that families who have the greatest need are being served in a way that the data seem to suggest is most appropriate and effective. For many families, this entailed looking at both the combination of home-based and center-based services.

Some of the interesting findings that come out of this study discuss the importance of continuous care. There seems to be a significant drop off at age 3. When the data at age 5 are examined, the children that seemed to do the best were those who had Early Head Start and a formal care experience from 3 to 5. That could be Head Start or childcare. However, it took both Early Head Start and a high quality continuous experience during the preschool period to solidify some of the findings that were evident at age 3. There were some findings that remain

for Early Head Start alone, but the best picture emerged when you looked at children that had a continuous birth to age 5 experience. That is important because the advisory committee envisioned that children would not just be getting Early Head Start but would have a birth to age 5 experience. They were drawing on new patterns related to program models and their impact on the outcomes.

There was a strong impact associated with the mixed approach at age 3. That shifted somewhat at age 5. There were some new insights about the importance of comprehensive services, especially for highest risk group. When the data for children at age 5 were examined, positive results emerged. These positive results were especially notable for children who went from Early Head Start to Head Start. When families are struggling with a number of risk factors, having access to comprehensive services can make a difference. The data seemed to illustrate that point clearly.

Beyond the national evaluation, there is also a descriptive study of Early Head Start. That is the next generation of important data now that we have been able to document and demonstrate that the program is making a difference. It is important that we move in the direction of FACES and critically understand the program's evolution. The goals of the descriptive study were to: (a) learn about management, staffing, and services; (b) operationalize performance measures; and (c) set the stage for future research.

Lombardi: It is critical to have a feedback loop for staff. These data are not important at all if they are not used by the staff to improve programs. In 1969, the Westinghouse report asked the question, does Head Start work or not? The question is still being asked. It is even worse now because we are in this instant information age. That is not what this is about. This is being done for program improvement. If one puts together all the data across all of the multiple data sets (i.e., PIR, FACES, Early Head Start, the Impact Study data), think of the kind of picture that can be put together. Think of the staff discussion time there could be so that people can reflect on what the data are saying. What do the data mean for programs? Programs have to explicitly put that on the table as a key point. The Early Head Start research team did a superb job of helping accomplish that by disseminating all the information shaped around the question, "How do you use this research in your programs?"

The national data has to be examined in context. Data from local programs and the ongoing observations and assessments of children must be compared to the curricula chosen by the local programs. Also, the national data has to be utilized and integrated with what people know from their observations and ongoing assessments. There needs to be continual discussion about that, particularly around the health component and family support. Attention should be drawn to the challenges of doing research with this particular age group. Young children have a broad range of developmental differences. This wide range of development challenges researchers to be more flexible regarding what the findings mean because from day-to-day, from moment-to-moment, children change. Young children development is tremendously variability. Finally, the data from Early Head Start shows clear evidence that there is no magic here. There needs to be intervention in a continuous way, especially with children from families with low incomes.