



Experimental Tests of Strategies to Improve Outcomes for Early Childhood Education Programs for At-Risk Children

National Invitational Conference of the Early Childhood Research Collaborative

December 7, 2007

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Promising Policies and Practices Based on the First Year Findings from the Head Start Impact Study



Today's Goals

- Brief overview of the Head Start Impact Study.
- Review first year findings.
- Implications of the findings.



STUDY DESIGN



Randomized Research Design

- Congress asked that the study be
 - nationally representative, and
 - a comparison of HS children with a group of comparable non-participants.
- Newly entering 3-and 4-year old Head Start applicants were randomly assigned to either:
 - **Treatment group** to enroll in Head Start, or
 - **Control group** that did not; parents found other available services for their child or the child was cared for at home.
- Focus on impacts—the difference between the outcome observed for Head Start participants and what ***would have been observed for these same individuals had they not participated in Head Start.***



Research Questions

- **Direct Effects:**

- What difference does Head Start make to key outcomes of development and learning (and in particular, the multiple domains of school readiness) for low-income children?
- What works for which children and families?

- **Indirect Effects:**

- What difference does Head Start make to parental practices that contribute to children's school readiness?
- Does Head Start affect the nature of children's early care experiences? Under what circumstances does Head Start achieve the greatest impact? What Head Start services are most related to impact?



Study Sample

- Nationally representative sample
- 84 randomly selected grantees across 23 states
- 383 randomly selected centers
- Total of 4,667 randomly assigned children: 2,559 3-year-olds and 2,108 4-year-olds
- Approximately 15% of children served by Head Start nationally were not represented in the study, due to decision to only include children from Head Start programs where there were fewer slots available than children applying.



Study Timeframe

baseline data collected in fall 2002

- Annual spring follow-up data collection through 2006, the end of first grade for youngest children
- Third Grade Follow-up Study-data collection being completed in Spring 2008
- Two more reports to be completed
 - Findings through the end of first grade—summer '08
 - Findings at the end of third grade—fall '09



Data Sources

- Child assessment
- Parent/primary caregiver interview
- Teacher survey
- Care provider interview
- Center director interview
- Teacher/care provider child report
- Care setting observation—pre-school years
- Secondary information on schools

Child and Family Outcomes: Domains and Constructs

Cognitive Domain

- Language and Literacy
 - Reading
 - Vocabulary
 - Oral comprehension
 - Phonological awareness
- Writing
- Math

Social-Emotional Domain

- Problem behaviors
- Social skills & competencies
- Approaches to learning
- Student-teacher relationship

Child and Family Outcomes: Domains and Constructs

Health Domain

- Access to health care
- Health status

Parenting Domain

- Educational activities with child
- Discipline strategies
- Child safety practices
- School communication and involvement
- Access to community services

Measures/Outcomes of Children's Experiences

- **Program/Provider Characteristics:**
 - Exposure to different types of child care experiences (e.g., center-based)
 - Part- vs. full-day programming
 - Program “quality” as measured by Early Childhood Environmental Rating Scale (ECERS-R) score
 - Access to comprehensive services
- **Teacher/Classroom Characteristics:**
 - Teacher-child relationships
 - Use of language and literacy activities, math activities, and other types of activities such as arts and crafts
 - Use of curriculum
 - Teacher qualifications



Early Findings, 2005 First Year Report



Response Rates

	Fall 2002		Spring 2003	
	Head Start (Treatment)	Non- Head Start (Control)	Head Start (Treatment)	Non- Head Start (Control)
Child Assessment	85%	72%	88%	77%
Parent Interview	85%	74%	86%	79%
Combined Rate	80%		83%	



One-Year Impacts on Children

- Cognitive Domain

- 3-year-old Cohort only:

- Small positive impact on vocabulary (PPVT and Color Naming).

- Both 3- and 4-year-old Cohorts:

- Small positive impacts on pre-reading (WJ Letter-Word Identification and Letter Naming) and pre-writing skills ((McCarthy Draw-A-Design (3) and WJ Spelling (4)).
 - Moderate positive impact on parent reports of children's literacy skills.
 - No significant impacts for oral comprehension, phonological awareness, or early mathematics skills.



One-Year Impacts on Children

- **Social-emotional Domain**

- 3-year old Cohort:

- Small impacts on reducing reported problem behaviors in general, and hyperactive behavior in particular.
- No statistically significant impacts on social skills, approaches to learning or social competencies.

- 4-year old Cohort:

- No significant impacts in this domain.



One-Year Impacts on Children

- Health Domain

- 3-year old Cohort:

- Small positive impact on parent reports of children's health status.
 - Moderate positive impact on parent reports of access to dental care.

- 4-year old Cohort:

- Moderate positive impact on access to dental care.



One-Year Impacts on Parents

- Parenting Practices Domain

- 3-year old Cohort:

- Small positive impacts on parents' reading to their child and involvement in enrichment activities.
 - Small impact on reduced use of physical discipline.
 - No significant impacts for safety practices.

- 4-year old Cohort:

- Small impacts on parents' reading to their child.
 - No impacts for physical discipline or safety practices.



Early Findings: Analyses of 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.
 - Head Start children were more likely to have been in the same setting in **both** fall 2002 and spring 2003.



Head Start vs. Child-Care Centers Used

- Children in Head Start centers were in higher-quality environments. Their centers had:
 - More positive ratings of teacher-child interactions;
 - More frequent use of an instructional curriculum and activities to enhance children’s skills;
 - Higher scores on the Early Childhood Environment Rating Scale: Revised Edition (ECERS-R).

Initial Subgroup Findings

- Some positive impacts were found for a variety of subgroups of children with a range of demographic and family characteristics
 - For 3-year-olds while some impacts for children whose primary home language was Spanish, more positive impacts for children whose primary home language was English. Many fewer impacts for 4-year-olds
 - Several positive impacts for African American and Hispanic children in 3-year-old-cohort.
 - Cognitive impacts decreased as parental depression increased
 - Head Start reduced use of physical discipline for mothers who had first given birth before the age of 19 (3-year-old cohort); For both cohorts, HS led mothers who had first given birth after the age of 19 to spend more time reading to their children and to take them to a greater variety of cultural enrichment activities



Implications

- Head Start is helping to bolster the school readiness skills of children from low-income families, particularly in the areas of letter and word identification where children showed gains towards the national norm.
- Areas of early math skills, phonological awareness, and oral comprehension seem in need of particular attention.
- 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.



Implications

- In the social-emotional domain, the impacts of Head Start on a child's 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 first grade years.
- 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 a parent and child, with perhaps more emphasis on early math activities.



Implications

- Head Start appears to be meeting a need for low-income families who want center-based care.
- Continued emphasis on program accountability, implementation of HS program performance standards, and application of evidence-based interventions may help to make Head Start even more effective.