

**Building Futures
The Head Start Impact Study
Interim Report**

September 2003

including random assignment of children to Head Start and non-Head Start groups at a diverse group of sites, selected nationally and reflecting the range of Head Start quality across the country. The end result is that the Head Start Impact Study is one of a small handful of randomized, nationally representative studies ever conducted.

Study Overview

The Head Start Impact Study is a longitudinal study involving approximately 5,000 3- and 4-year-old newly entering children who were eligible for Head Start and who applied in fall 2002 to 383 centers across 84 nationally representative grantee/delegate agencies.⁵ The participating children have been randomly assigned to either a Head Start group (that receives Head Start services) or to a control group (that does not receive Head Start services but may enroll in other available services selected by their parents or may be cared for at home). Every effort was made to minimize the burden on individual programs and not to significantly change typical enrollment and recruitment procedures.

Children enrolled in Early Head Start, Migrant Head Start and programs operated by Tribal Organizations, those considered extremely new (i.e., in operation less than 2 years), and those considered severely out of compliance were not included in the study.

Great care was taken to include only programs that were not currently serving all of the eligible children in their community. This was to ensure the availability of a sufficient number of unserved, eligible children available who could be randomly assigned to a control group, without causing the program to serve any fewer children than would otherwise be the case. These "saturation" determinations were based on grantee/delegate agencies' own reports of enrollment levels in fall 2001, along with other available information.

Data Collection

Data collection began in fall 2002 and is scheduled to continue through 2006, following children through the spring of their 1st grade year. It includes in-person interviews with parents,

⁴ See Appendix A for the research-related amendments to the Head Start Act included in the 1998 reauthorization.

⁵ The study sample includes both Head Start grantees and their delegate agencies. Grantees are organizations that have fiscal and administrative responsibility for programs in their jurisdiction. In some cases, they can subcontract with agencies to handle administrative oversight over some or all of these programs. Throughout this report we use the term grantee/delegate agencies to refer to both types of agencies.

in-person child assessments conducted twice during the first year of the study and annually afterwards, annual surveys with care providers and teachers, direct observations of the quality of different care settings, and teacher ratings of individual study children. The data to be collected include the following:

- Individual child data in areas related to school readiness, such as approaches to learning, language usage and emergent literacy, cognition and general knowledge, physical well-being and motor development, and social and emotional development.
- Information pertaining to: parenting practices, including parents' descriptions of the types of literacy activities they engage in with children at home; family resources and risk factors; and family demographic and socio-economic characteristics.
- Information on the structure, process, and quality of Head Start, child care, and school settings through first grade, including teachers' reports on their credentials and experience and structured observations of the quality of different care settings, including assessments of classroom resources and instructional practices.
- Community-level data relating to the availability of formal and informal family support services.

Status Update and Reports

The Head Start Impact Study began in October 2000 with initial activities focused on developing the study design, recruiting Head Start grantee/delegate agencies, and field testing study measures and procedures. The selection and recruitment of participating Head Start centers, families, and children continued through spring 2002, culminating with the collection of child, family, and program data in fall 2002 and spring 2003. Activities are on schedule for the planned final report of findings in December 2006. Accomplishments to date include:

- During the 2000-01 Head Start year, conducted an advance field test involving eight Head Start grantees, 21 Head Start centers, and approximately 400 children to test the feasibility of all study procedures.
- During the 2001-02 Head Start year, completed the selection and recruitment of a national probability sample of 84 grantee/delegate agencies and 378 Head Start centers to participate in the national study.
- During summer 2002, completed random assignment, in all recruited centers, resulting in 4,750 children being randomly assigned to either a Head Start treatment group or a non-Head Start control group.
- Completed fall 2002 data collection, with high overall response rates for both child assessments and parent interviews with a combined rate of 80 percent for fall 2002.
- Completion of data entry and checking for errors, as well as statistical weighting of the fall 2002 data. The initial assessment of the psychometric properties of the child assessments is currently underway.
- Completion of spring 2003 data collection with approximately 83 percent response rates for both child assessments and parent interviews.

- Have started data entry and checking for errors, as well as statistical weighting. Initial assessment of psychometric properties for the spring 2003 data collection will continue on an ongoing basis following the completion of this process for the fall 2002 data.
- A meeting was held of the Advisory Committee on Head Start Research on June 16 and 17, 2003, to update the committee on the progress of the study activities and to seek additional input and recommendations on the remaining work of the study. A summary of the Advisory Committee meeting can be found at <http://www.acf.hhs.gov/programs/hsb/research/hsreac/index.htm>

Overall, Advisory Committee members commented positively on the research design of the Impact Study and the success of implementation to date, especially given the complexity of the Congressional mandate and the ethical concerns of randomly assigning low-income children to a control group. Several members noted that when completed, the Impact Study will provide a rich array of data that will not only meet the Congressional requirements, but will also allow for an extensive range of secondary data analyses.

A final report of the study findings is scheduled for December 2006.

Chapter 1: Introduction

Introduction

Section 649(g) of the Head Start Act, as amended by the Coats Human Services Reauthorization Act of 1998 (P.L. 105-285) required the Department of Health and Human Services (DHHS) to conduct a national analysis of the impact of Head Start. The legislation also charged the Secretary to appoint an independent panel of experts to review and make recommendations on the design of a plan for research on the impact of Head Start within one year after the date of enactment of P.L. 105-285, to advise the Secretary regarding the progress of the research, and to comment on the interim and final research reports. Three reports to Congress were mandated in the legislation. The first required interim report, summarizing the deliberations and recommendations of the Advisory Committee, was completed and transmitted to Congress in October 1999. The second report to Congress, describing the background and purposes of the study, the progress made to date in implementing the study, and the activities undertaken to conduct a field test and prepare for the full study, was submitted in June 2002. This third mandated report describes the status of the study activities to date, including preliminary information from the fall 2002 baseline data collection.

Background

The Head Start program provides comprehensive early childhood development services to low-income children and their families. Over the last decade the program has experienced significant growth, particularly as greater attention has been paid to the need for early intervention in the lives of low-income children. During this period of growth, the U.S. General Accounting Office (GAO) released two reports underlining the lack of rigorous research on Head Start's effectiveness, i.e., “. . . *the body of research on current Head Start is insufficient to draw conclusions about the impact of the national program,*”⁶ and, as a consequence, “. . . *the Federal government's significant financial investment in the Head Start program, including plans to increase the number of children served and enhance the quality of the program, warrants definitive research studies, even though they may be costly.*”⁷

⁶ U.S. General Accounting Office (1997). *Head Start: Research Provides Little Information on Impact of Current Program*. Washington DC: Author.

⁷ U.S. General Accounting Office (1998). *Head Start: Challenges in Monitoring Program Quality and Demonstrating Results*. Washington DC: Author.

Based upon the GAO recommendation, and the testimony of research methodologists and early childhood experts, Congress mandated through the 1998 reauthorization of Head Start that DHHS determine, on a national level, the impact of Head Start on the children it serves.⁸ In October 2000, DHHS awarded a contract to Westat in collaboration with The Urban Institute, the American Institutes for Research, and Decision Information Resources to conduct this research study.

Given the very specific legislative mandate, along with input from the Advisory Committee on Head Start Research, DHHS has implemented the most rigorous and scientific study, given ethical constraints, which have been described in earlier reports to Congress. The design is built upon the Advisory Committee report, *Evaluating Head Start: A Recommended Framework for Studying the Impact of the Head Start Program*. This report set forth a framework for research on the impact of Head Start that is both scientifically credible and feasible. The Committee acknowledged that the legislative language recommended the use of a rigorous methodology, including random assignment of children to Head Start and non-Head Start groups at a diverse group of sites, selected nationally and reflecting the range of Head Start quality across the country. The report also noted that the legislative mandate clearly requires that the impact study must address two main questions. These questions are discussed in the next section.

The Congressional Mandate

The goal of the national Head Start Impact Study (HSIS) is to answer the following critically important policy questions mandated in the 1998 legislation:⁹

1. *“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 difference does Head Start make to parental practices that contribute to children’s school readiness?”*
2. *“Under what circumstances does Head Start achieve the greatest impact? What works for which children? What Head Start services are most related to impact?”*

The first policy question consists of two parts: (1) the overall average effect of Head Start on the extent to which children enter school ready to learn, representing the **direct** impact of program participation on children’s early development, and (2) the extent to which Head Start participation has an **indirect** effect by improving the ability of parents to support their children’s learning and development, i.e., these factors are hypothesized to have a subsequent effect on the school readiness, and later school performance, of participating Head Start children. Though not specifically identified, it is also valuable to

⁸ See Appendix A for the research-related amendments to the Head Start Act included in the 1998 reauthorization.

⁹ Advisory Committee on Head Start Research and Evaluation (1999). *Evaluating Head Start: A Recommended Framework for Studying the Impact of the Head Start Program*. Washington, DC: US Department of Health and Human Services.

differences on a particular outcome measure (e.g., emergent literacy) that may, in fact, be a result of pre-existing differences between participants and non-participants.

To avoid this problem of selection bias, the Head Start Impact Study **randomly assigned** a sample of newly entering 3- and 4-year-old Head Start applicants¹² either to a **treatment group** (in which children and families received Head Start services) or to a **control group** (in which children were not granted access to Head Start but may have received other services chosen by their parents). Under this randomized design, a simple comparison of outcomes for the two groups yields an unbiased estimate of the impact of the treatment condition, or, in this case, the effect of Head Start participation on children's school readiness. The advantage of this research design is that if random assignment is properly implemented with a sufficient sample size, program participants should not differ in any systematic or unmeasured way from non-participants except through their participation in Head Start services.¹³

The remainder of this chapter describes how this randomized design was implemented and the characteristics of the study sample.

Selection of Head Start Programs

Most randomized studies are conducted in small demonstration programs or, if done in an ongoing program, in only a small number of operating sites, usually those that volunteer to be included in the research. In contrast, the Head Start Impact Study is based on a nationally representative sample of Head Start programs and newly entering 3- and 4-year-old children. That is, both programs and children applying for entry into Head Start in fall 2002 were selected at random making results generalizable to the entire Head Start program,¹⁴ not just the selected study sample. This approach responds to the Congressional mandate that the study provide “*a national analysis of the impact of Head Start*” based on the selection of Head Start grantee/delegate agencies¹⁵ that “*operate in the 50 states, the Commonwealth of Puerto Rico, or the District of Columbia and that do not specifically target special populations.*”

¹² The Head Start Impact Study focuses on newly-entering children to ensure that the estimated impacts are unaffected by previous program participation. Consequently, children who were returning to Head Start, as well as those previously enrolled in Early Head Start, were excluded from the study sample.

¹³ More precisely, there will be differences between individuals in the two groups, but the expected or average value of these differences is zero except through the influence of Head Start (i.e., selection bias is removed by random assignment).

¹⁴ As will be discussed below, some Head Start grantee/delegate agencies were intentionally excluded from the study. Study results will, therefore, be reported for both the restricted national sample and for the full Head Start population of newly entering children.

¹⁵ The study sample includes both Head Start grantees and their delegate agencies. Grantees are organizations that have fiscal and administrative responsibility for programs in their jurisdiction. In some cases, they can subcontract with agencies to handle administrative oversight over some or all of these programs. Throughout this report we use the term grantee/delegate agencies to refer to both types of agencies.

Furthermore, the Advisory Committee recommended that the sample of Head Start grantee/delegate agencies should reflect variation in a variety of characteristics, including “*region of the country, race/ethnicity/language status, urban/rural, and depth of poverty in communities,*” and “. . .*design of program as a one-year or two-year experience for children; program options (e.g., center-based, home-based, part-day, full-day); auspice (e.g., Community Action Agency, public school, non-profit organization); community-level resources; alternative child care options for low-income children; and, the nature of the child care market and the labor market in the community studied.*”

The Grantee/Delegate Agency Sampling Process

To meet the legislative requirements, the study used a multi-stage sample selection process to select Head Start programs. The process, depicted in Exhibit 1, began by selecting a large sample of grantee/delegate agencies, screening these programs for inclusion in the impact study, and then selecting a sample of Head Start centers within the sampled grantee/delegate agencies. This process is described below:

