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# Evaluating Head Start:

## A Recommended Framework for Studying the Impact of the Head Start Program

Advisory Committee on Head Start Research and Evaluation

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October 1999

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**H**ead Start provides comprehensive early child development services to low-income children, their families, and communities. With more than 18 million children served since the program began in 1965, a federal appropriation of \$4.7 billion in fiscal year 1999, and increased attention to outcomes and accountability for federal resources, the program has been challenged to demonstrate its effectiveness through rigorous research designed by nationally renowned experts. Specifically, the Head Start Amendments of 1998 (P.L. 105-285) directed the Secretary of Health and Human Services to establish an expert panel on Head Start research and evaluation, charged with offering recommendations for a study or studies that provide a national analysis of the impact of Head Start, advising the Secretary on the progress of the research, and commenting on the study reports. The Advisory Committee on Head Start Research and Evaluation was organized to meet this charge.

The Committee met three times between April and July 1999 to fulfill the first part of the Committee's charge. This report to the Secretary summarizes the deliberations of the Committee and sets forth a framework for evaluating the impact of Head Start.

### Recommendations

The Committee concludes that a study or set of studies of the impact of Head Start must address two main questions. First, as specified in the statute, the study or studies must answer the question of impact: what difference does Head Start make in the development (and, in particular, the multiple domains of school readiness) of the nation's low-income children? Second, and consistent with the legislation, the Committee believes that a successful study or studies must address the question of how impact varies in certain key situations: under what circumstances does Head Start work best and for which children?

The Committee saw its charge as developing a research design that is capable of answering these questions and that meets two key criteria:

- ◆ An acceptable design must be scientifically valid and widely **credible**. It must provide evidence that is scientifi-

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cally convincing and persuasive to a variety of audiences, such as the Congress, the research community, program staff, and parents.

- ◆ An acceptable design must be **feasible**. It must be capable of being implemented in the real world by researchers working in close partnership with Head Start programs.

Much of the Committee's deliberations focused on the potential tension between these two criteria. In the end, after a rich and lively debate, the Committee set forth a framework for impact research in Head Start that we believe is both credible and feasible. The key elements of this framework are as follows:

1. The Committee believes that the research design should include random assignment of children and families to Head Start and non-Head Start groups at a diverse group of sites located across the country. The Committee spent a considerable portion of its deliberations discussing the feasibility, ethics, and credibility of random assignment designs and concluded that random assignment of children **within the framework described here** represents the best approach that the Committee can identify to answering the two central research questions and meeting the two key criteria. Committee members believe that random assignment will not be easy to implement but is nevertheless important.
2. To ensure that random assignment is feasible and to ensure that families are not unfairly denied Head Start (an ethical concern to many members of the Committee), sites where Head Start saturates the community (i.e., where there are not enough unserved children to permit random assignment of a sufficient number of children to an unserved control group) would be excluded from the random assignment portion of the study or studies.

*In the end, after a rich and lively debate, the Committee set forth a framework for impact research in Head Start that we believe is both credible and feasible.*

3. Every effort should be made to ensure that the sites selected are representative of Head Start sites nationally. Diversity should be sought on key criteria (e.g., region of the country and poverty level of the community). Sites should reflect the range of Head Start quality across the country. Sites would be provided appropriate incentives and supports to facilitate their involvement in the study or studies. The small number of sites that are out of compliance with Head Start standards or extremely new to the program would be excluded.
4. To answer the research questions rigorously and credibly, the Committee believes that the study or studies must measure quality in the Head Start sites and in the child care, prekindergarten, and other settings experienced by control group children. More specifically, the Committee believes that the study or studies must collect the same or closely comparable information on the Head Start children and control group children across all the areas of measurement, to the extent feasible. These recommendations are particularly important to help address the concerns raised by some members of the Committee that some Head Start programs (particularly the best) are likely to have influenced other child care and prekindergarten programs available to low-income children, so that the environments of control group children have been influenced (or, in research terms, contaminated ) by the Head Start treatment.
5. Outcome measurement in the study or studies should focus on the multiple domains important for school readiness of children<sup>1</sup> and on parental practices that contribute to school readiness. The Committee has specific recommendations regarding the domains of school readiness on which to focus, the nature of the measures that should be used, and the need to improve measurement for children for whom English is a second language.
6. The Committee identified several strategies for selecting sites. Each strategy has advantages and disadvantages,

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which should be fully assessed and reviewed by the Department of Health and Human Services (the Department) during development of the detailed research design.

7. The Committee believes more consideration needs to be given to the option of using quasi-experimental or other embedded studies to supplement the information from the randomized impact study or studies. Some members believe quasi-experimental studies could yield useful information about Head Start, but others question the validity of these studies. All members agree that the amount of money spent on quasi-experiments should be small relative to the amount spent on a randomized study or studies. This option should be more fully developed and reviewed by the Department during development of the detailed research design.
8. The Committee believes that the Department should consider carefully, in consultation with the Head Start community, what incentives for parents and for programs would be most helpful to secure participation in the study, consistent with the research methodology. The Committee strongly encourages the use of an appropriate range of incentives that are offered to Head Start programs and families as well as control group programs and families.
9. Immediate and continuing efforts should be made by the Department to promote the use of research and the findings from the impact study or studies to improve the effectiveness of Head Start programs for the benefit of children and families.
10. The Committee believes that it is critical to draw on information from the existing Head Start research agenda to complement the information gained from the impact study or studies. In addition, the Committee believes that the research design proposed here should be part of a rich and active overall research agenda, not a substitute for it.

*The Committee believes that the research design proposed here should be part of a rich and active overall research agenda, not a substitute for it.*

11. Finally, the Committee notes that none of the design options it considered, including the recommended design framework presented here, would meet the congressional time frame of a report by September 2003. Because the statute (and the Committee) endorses follow-up of children through at least the end of first grade, all of the options considered would lead to a final report in approximately the year 2006. As a result, the Committee urges the Department to make the fullest possible use of valuable information on outcomes that will be available sooner from other ongoing and new research efforts—such as the Head Start Family and Child Experiences Survey and the birth and kindergarten cohorts of the Early Childhood Longitudinal Survey—and to present this information in the forms and at the times that are most useful to policymakers.

## Major Issues and Challenges

The Committee developed this framework for rigorous Head Start impact research after extensive deliberations that focused on two broad areas.

### *Challenges Related to Credibly and Accurately Assessing Impact*

*The Committee spent a great deal of its time discussing the credibility, feasibility, and ethics of random assignment in the Head Start context.*

Because most Committee members agreed that the most rigorous methodological approach to answering questions about impact is to compare children and families who are randomly assigned to Head Start with children and families who are assigned to a control group that does not receive Head Start, the Committee spent a great deal of its time discussing the credibility, feasibility, and ethics of random assignment in the Head Start context. Most Committee members believed ethical issues were diminished once programs with waiting lists or unserved children were considered as the basis for a random assignment sample. Among the key issues considered by the Committee in these deliberations were the following:



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- ◆ Is it ethical, and if so, under what circumstances, to assign children to a control group that receives no Head Start services?
- ◆ Is it feasible to maintain adequate participation in the research by families assigned to a control group that receives no Head Start services? Is it feasible to recruit parents who are fully informed that participation in Head Start will be determined by lottery? How do parents see their choices and what incentives for participation in the research might be helpful, ethical, and not in conflict with the research approach?
- ◆ Are there special ethical and feasibility issues with regard to children identified as particularly high-risk, who are typically given first priority for enrollment in Head Start programs?
- ◆ Is it feasible to expect that Head Start program staff will be willing to implement the random assignment approach? Are they willing to keep control group children out of the program?
- ◆ How does the dramatic expansion of other child care and early childhood alternatives, including state preschool programs for low-income children, affect the feasibility and credibility of a randomized study design?
- ◆ How does the potential effect of Head Start on broader community child care services affect the credibility of the random assignment design? That is, if Head Start programs affect the quality of the services received by control group children, how serious a problem will that be to the research design?
- ◆ Are there alternatives to a randomized study design that would be sufficiently credible in answering the key research questions?

During the course of these deliberations, the Committee benefited from the experiences of a set of Head Start feasibility studies of random

assignment conducted by researchers in the Head Start Quality Research Centers in partnership with local programs. The Committee also drew on existing research and data about Head Start, child care, and other early childhood programs, as well as the experiences of its members in state-of-the-art research and evaluation across a wide variety of policy areas.

The Committee's resolution of these issues appears in Chapter V Rationale for the Recommendations: Addressing Key Challenges.

### *Challenges Related to Generalizing Findings to the National Head Start Program*

*The Committee focused on the need to provide a national analysis of impact in the most rigorous manner possible.*

The Committee focused extensively on several issues raised by the congressional charge to provide a national analysis of the impact of Head Start in the most rigorous manner possible. Among the key issues considered as part of these deliberations were the following:

- ◆ What is known about the capacity of sites to successfully comply with the demanding task of random assignment, and about the number and distribution of sites that are at saturation with respect to the percentage of eligible children currently being served by Head Start or comparable programs?
- ◆ What are the advantages and disadvantages of a strategy that involves a nationally representative, stratified random selection of sites?
- ◆ What are the advantages and disadvantages of a more purposive strategy that seeks to target a group of sites selected for diversity on key variables and chosen to maximize the likelihood of successful implementation of the research design?
- ◆ Are there alternative, quasi-experimental strategies that might yield useful knowledge at sites without the capacity to carry out random assignment?

## Next Steps

Based on extensive discussion of the information available to answer these and other key questions, the Committee believes that the framework outlined in this report represents the best strategy for evaluating the impact of Head Start on children. At the same time, the Committee believes that several key next steps are critical to translating this strategy into a credible, powerful, and feasible study or set of studies. In particular, we urge the Secretary, the research community, and the Head Start community to commit to the following next steps:

- ◆ Demonstrate clear leadership and commitment to the rigorous evaluation of the Head Start program, at all levels of the Department and the Head Start community;
- ◆ Ensure true partnership between researchers and the Head Start community and involve the Head Start community from the earliest phases of the design;
- ◆ Conduct an initial feasibility study or set of activities to collect additional information that is essential to the detailed planning and refinement of the design; and
- ◆ Pay close attention to the ongoing implementation of the research, including ensuring several opportunities to review the design and modify it where appropriate.

*The Committee believes that the framework outlined in this report represents the best strategy for evaluating the impact of Head Start on children.*

In conclusion, the Committee hopes that a rigorous, credible, and feasible evaluation of the impact of Head Start on the school readiness of low-income children across the country will contribute to the nation's ability to achieve its goals of providing high quality care and education and enhancing opportunities for all children. We have sought to design a framework that in conjunction with the rich and active research agenda currently underway in Head Start and other early childhood programs will assist policymakers and the Congress to ensure that the goals of the Head Start program are fully accomplished and will help early childhood professionals, in Head Start and other programs, to learn more about how to improve their efforts to enhance results for children.

Head Start provides comprehensive early child development services to low-income children, their families, and communities. Since 1965, the program—enjoying bipartisan support—has served nearly 18 million children and their families (Administration on Children, Youth and Families, 1998), providing preschool-aged children with education, nutritious meals, and access to health, mental health, and social services that support their early development. Further, the program has influenced the development and direction of a broad range of early child development services across the nation through its role as a national laboratory. The program has provided support to low-income families seeking enriching experiences for their children, and it has provided direction and leadership to the fields of early child development and education.

*With increased attention to outcomes and accountability for federal resources, the Head Start program has been challenged to document its effectiveness in new ways.*

With increased attention to outcomes and accountability for federal resources (Government Performance and Results Act of 1993)<sup>2</sup>, the Head Start program has been challenged to document its effectiveness in new ways. A series of reports from the U.S. General Accounting Office (U.S. GAO, 1997; U.S. GAO, 1998) and concern among congressional leaders about the lack of rigorous experimental designs testing the effectiveness of the program caused Congress to specifically call for the formation of an independent panel of experts to review and make recommendations on the design of a study or studies that provide a national analysis of the impact of the Head Start program (Head Start Amendments of 1998).

The Head Start Amendments of 1998 provide specific guidance about how Congress envisions impact research on Head Start. For example, the legislation calls for research that uses rigorous methodological designs and techniques (based on the recommendations of the expert panel), including longitudinal designs, control groups, nationally recognized standardized measures, and random selection and assignment, as appropriate. The legislation states that the research shall be conducted as a single comprehensive assessment or as a group of coordinated assessments designed to provide, when taken together, a national analysis of the impact of Head Start programs. The legislation states that the assessment or coordinated assessments include comparisons of individuals who participate in Head Start programs with control groups (including comparison groups) composed of (i) individ-

uals who participate in other early childhood programs (such as public or private preschool programs and day care); and (ii) individuals who do not participate in any other early childhood program. Impact is defined as a difference in an outcome for a participant in the program that would not have occurred without the participation in the program and is to be examined at three points in time: on the date participants leave Head Start programs; at the end of kindergarten; and at the end of first grade. The final report of the research study or studies is to be transmitted to Congress by September 30, 2003 (Head Start Amendments of 1998).

### **The Advisory Committee on Head Start Research and Evaluation**

On March 23, 1999, Department of Health and Human Services Secretary Donna Shalala signed the Charter establishing the Advisory Committee on Head Start Research and Evaluation. The Charter reiterates the requirements spelled out in the Head Start Amendments, as amended by the 1998 reauthorization. It also states that as part of the process, the Committee shall:

- ◆ Review existing and ongoing research and evaluation studies that document the impact of Head Start programs;
- ◆ Assess the benefits and feasibility of alternative research designs and techniques to determine if, overall, Head Start programs have impacts consistent with their primary goal of promoting school readiness by enhancing the social and cognitive development of low-income children;
- ◆ Report to the Secretary on recommendations for a study or studies of the impact of Head Start services, including appropriate designs, techniques, methods of analysis, and consideration of sources of variation;
- ◆ Advise the Secretary on the progress of the study or studies of the impacts of Head Start programs; and

- ◆ Review and comment to the Secretary, if the Committee so desires, on the first and second interim and final impact study reports of the organization(s) selected for carrying out the independent research.

The Advisory Committee includes 30 individuals with expertise in areas of program evaluation and research, education, early childhood care and education, policy, and economics. Many of the Committee members have a long and rich involvement with Head Start and other early childhood programs; other members are new to Head Start but have extensive backgrounds in research methodology. A biographical sketch of each Committee member is included at the end of this report. The Committee is chaired by Olivia A. Golden, Ph.D., Assistant Secretary for Children and Families of the Department of Health and Human Services.

The Committee met in April, June, and July 1999 in order to fulfill the first phase of the Committee's charge: issuing recommendations to the Secretary for a study or studies that provide a national analysis of the impact of Head Start. In addition to these meetings, individual Committee members volunteered to draft design and issue papers that were circulated between meetings and helped the Committee reach the conclusions that are included in this report. All meeting agendas and papers prepared by Committee members were posted on the Department's web page for public access.

*Overall, the Committee finds the complexity of the task very challenging: Committee members recognize that there is no simple design for measuring the impact of Head Start.*

The deliberations were thoughtful and intense. Overall, the Committee finds the complexity of the task very challenging: Committee members recognize that there is no simple design for measuring the impact of Head Start. Some design choices threaten external validity (i.e., representativeness or the ability to generalize from study participants to the Head Start population as a whole); others threaten internal validity (i.e., causality or the ability to attribute observed outcomes to participation in Head Start). Some research designs would require changes in the practices and procedures for enrolling the most needy children in Head Start; other designs would require that services be denied to eligible children. Deciding precisely what to recommend, primarily as it relates to the trade-offs between external and internal validity, was a challenging task for the Committee.

This report—the first phase of the Committee’s work—represents the deliberations of the Committee and its recommendations to the Secretary regarding a framework for studying the impact of Head Start. Chapters include:

- ◆ **The Growth of Head Start and Other Early Childhood Options.** This chapter provides background information on the growth of Head Start and other early childhood options that Committee members considered as they discussed the most credible and feasible methods for measuring the impact of Head Start.
- ◆ **Previous and Current Research on Head Start and Early Childhood.** This chapter summarizes findings from previous research on Head Start and other early childhood studies, and outlines the components of the current Head Start research agenda that provide information about impact, quality, and outcomes.
- ◆ **Recommended Framework for Studying the Impact of Head Start.** This chapter reflects deliberations of the Committee related to its charge—issuing recommendations to the Secretary regarding the design of an impact study (or set of coordinated assessments) of Head Start. Thus, it includes the research questions, criteria, outcomes, measurement issues, and overall research design recommended by the Committee.
- ◆ **Rationale for the Recommendations: Addressing Key Challenges.** This chapter highlights challenges for designing an impact study or studies of Head Start that influence the generalizability of the findings and the ability to determine causality. Members of the Committee believe that with careful planning and ongoing consideration, these challenges could be addressed in an impact study or set of studies.
- ◆ **Next Steps: Implementing the Recommendations.** This chapter outlines specific steps for the Department of Health and Human Services to take in carrying out a plan for studying the impact of Head Start.

**W**hen Head Start began in 1965 as part of the War on Poverty, it was a six-week summer program for children of low-income families. At that time there were few other formal early child development settings providing services to these children. Since then, Head Start has blossomed into a national effort with programs in every state and nearly every county of the country, as well as in the major territories. Most programs provide part-day services during the regular school year; however, an increasing number of programs are providing, either directly or in partnership with other providers, full-day, full-year services. Just as Head Start has grown, so too have other options for early childhood care and education. Children are being cared for in a range of settings from relative care to home-based child care, family child care, group care, and center-based care. With changes in family structure and the necessity for many parents to work outside the home, children are spending significant amounts of time in care and often receive care from multiple programs in a single day.

### The Head Start Program

*It is estimated that 27 percent of 3-year-olds and 48 percent of 4-year-olds from families at or below the Federal poverty line are enrolled in the Head Start program.*

In 1998, there were 1,513 Head Start grantees with 15,872 centers and 48,004 classrooms, in which 822,316 children were served (Administration on Children, Youth and Families, 1999). It is estimated that 27 percent of 3-year-olds and 48 percent of 4-year-olds from families at or below the Federal poverty line are enrolled in the program. Income is defined as the family's total cash receipts before taxes. For example, a family of four with pretax income of \$16,700 or less would be eligible for Head Start (Administration on Children, Youth and Families, 1999). More than 70 percent of the families served by the program earn less than \$12,000 per year (Administration on Children, Youth and Families, 1998). Thirty-six percent of the families served are African American; 32 percent are White; 26 percent Hispanic; 3 percent American Indian; and 3 percent Asian (Administration on Children, Youth and Families, 1999)<sup>3</sup>. English is the second language for approximately 22 percent of children enrolled in Head Start. The federal cost of supporting the Head Start program in fiscal year 1999 was \$4.7 billion (Administration on Children, Youth and Families, 1999).



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Head Start has evolved in response to changes in family structure, poverty, immigration and mobility patterns, and community resources. For example, increasing numbers of Head Start programs are providing directly or through referral full-day, full-year services; support to new populations (immigrant and refugee) and migrant families has increased; and services to pregnant women and families with infants and toddlers were initially offered through the Child and Family Resource Program and the Parent Child Centers, and are currently being offered through Early Head Start programs. Even with these changes, Head Start has maintained its initial philosophy, principles, and goals.

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◆ **Philosophy.** The basic philosophy that undergirds the Head Start program is that children benefit from quality early childhood experiences and that effective intervention can best be accomplished through high quality comprehensive services to children, along with family and community involvement that addresses the unique needs of children and their families.

◆ **Principles.** Head Start programs are guided by the following principles:

**Comprehensive Services.** To develop fully and to achieve social competence, children and their families need a comprehensive, interdisciplinary approach to services including education, health, nutrition, social services, and parent involvement.

**Parent Involvement and Family Focus.** The Head Start program is family centered and is designed to encourage and support the parent's role as the principal influence on the child's development and as the child's primary educator, nurturer, and advocate.

**Community Partnerships and Community-Based Services.** Head Start programs are intended to be community-based, with specific models of service provision flowing out of the needs of diverse communities.

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*Head Start embraces the comprehensive view of school readiness recommended by the National Education Goals Panel.*

- ◆ **Goals.** Head Start embraces the comprehensive view of school readiness recommended by the National Education Goals Panel (Kagan, Moore, & Bredekamp, 1995). This view encompasses five developmental domains key to school readiness: physical well-being and motor development; social and emotional development; approaches to learning; language development and emerging literacy; and cognition and general knowledge. It takes into account the interrelatedness of cognitive, emotional, and social development; physical and mental health; and nutritional needs.

All Head Start programs must meet a set of Program Performance Standards that define the core services that Head Start programs are required to provide. The Performance Standards evolved over time in order to provide operating guidelines and promote quality in all programs. They were last updated in 1998 and are expected to be updated periodically to reflect new knowledge about child development and best practices.

A monitoring and technical assistance effort ensures that programs are in compliance with the Performance Standards and are engaged in efforts to continuously improve the quality of services provided to children as new information and knowledge becomes available about child development and best practices. The Department expects all programs to be of high quality or have quality improvement plans in place. In recent years, the Head Start Bureau has made a special effort to assist grantees that are deficient in meeting the Program Performance Standards to improve their service delivery, or if this is not possible in an allotted time, to terminate their funding. Since 1993, more than 100 grantees have been terminated or have relinquished their funding. More than twice that number of grantees have been provided intensive technical assistance and have achieved compliance.

While recruitment strategies of individual Head Start programs vary, all programs develop selection criteria to guide decisions on which eligible children to enroll in the program and how to rank remaining families on a waiting list. Selection criteria such as family income, family

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size, employment status of parents, special needs, or risk factors of the child determine who will be enrolled in the program first. As slots become vacant during the year, the selection criteria also help to determine which children from the waiting list are offered an opportunity to enroll.

Based on the unique situation and resources of the community and the needs of the children and families served, local Head Start programs are free to vary their practices and approaches, provided that at a minimum they carry out the philosophy, principles, and goals of the Head Start program and meet the established Performance Standards. For example, there is significant variation in the auspices of Head Start programs (e.g., private nonprofits, for-profits, community action agencies, public school systems, local governments); models (e.g., center, home-based, combination, family child care homes meeting Head Start Performance Standards); scope of service (e.g., part-day or full-day, care for 4-year-olds or 3- and 4-year-olds); penetration (e.g., the proportion of eligible families programs are serving); curriculum (e.g., Creative Curriculum, High/Scope, local curricula developed by programs); and other aspects of Head Start programs (e.g., direct provision of or referral to health, mental health, and social services, and father involvement initiatives).

This flexibility to shape local programs to best address the needs of children, their families, and communities is intended to keep the program relevant in an ever-changing environment. For example, programs serving new immigrant or refugee populations adapt the services they provide and their curriculum so that they are culturally relevant. Programs have implemented family child care home options that provide Head Start services in a home setting, with more flexible schedules for working parents. It is expected that in the future, even more programs will provide full-day, full-year services either on their own or through partnerships with other child care providers in the community. When these partnerships occur, the child care partner will be helped to meet Head Start Performance Standards to ensure a quality early childhood program.

Thus, all Head Start programs, either directly or through referral, provide comprehensive education, health, nutrition, and social services to

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enrolled children and their families. In addition, all programs actively engage parents in the governance and management of the Head Start program and build relationships with community partners. They all must meet a set of Program Performance Standards and are provided training and technical assistance to continually enhance their effectiveness. The opportunity to vary practices and approaches is simply an attempt to ensure that the program meets the needs of the children and families in the particular community.

### Early Childhood Options

*Just as Head Start has blossomed, so too have other options for early childhood services.*

Just as Head Start has blossomed, so too have other options for early childhood services. In 1965 when Head Start began, children were primarily cared for by parents and family members. Since that time, there has been an increase in the number of children with both parents or their single parent working outside the home. For example, in 1998, 64 percent of married mothers with a child under age six were in the work force, compared with only 30 percent in 1970 (U.S. Department of Labor, 1999). This has created a significant need for other child care options. In particular, the 1990s have been marked by a significant rise in the number of children in child care settings, in part due to welfare reform and other changing family and economic dynamics. In the fall of 1994, roughly 10 million children under five years of age had mothers in the work force, of whom 49 percent were cared for by parents or relatives, 29 percent in center-based programs, 15 percent in family child care homes, and 5 percent by an in-home caregiver (U.S. Bureau of the Census, 1995).

The Federal government has responded over the years with investments in a range of child care options. In addition to the investment in Head Start, the Federal government, through the Child Care Development Block Grant (CCDBG), provides subsidies to low-income parents to access the child care services of their choice—from relative care to center-based care, family child care and the like. In fiscal year 1997, 1.25 million of 10 million eligible children received a subsidy.

Further, the Federal government has invested in building a cadre of credentialed early childhood staff. In 1971 Head Start developed and

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began implementation of the Child Development Associate credentialing program, which guides and then assesses and awards a credential to early childhood program staff both within and outside of Head Start. More than 100,000 Child Development Associate credentials have been awarded, with nearly half to early childhood staff who are not employees of Head Start, thus influencing the quality of care provided in many other early childhood programs.

Like the expansion of federal support and resources for early childhood, states have also made significant changes to their investment. In 1965 when Head Start began, there were no states funding center-based early childhood programs. By 1968, four states, including New York and California, and the District of Columbia, were beginning initiatives for 3- to 5-year-olds. By 1998, 39 states were funding prekindergarten programs (Mitchell, Ripple, & Chanana, 1998). Levels of state investments and number of children served vary, but it is estimated that in 1998-99 approximately \$1.4 billion of state funds were being spent to provide prekindergarten services to more than 677,000 children in the United States, often with a focus on children in poverty (Mitchell, Ripple, & Chanana, 1998). Notably, Georgia and New York offer a universal program for 4-year-old children, regardless of family income (Ripple, Gilliam, Chanana, & Zigler, 1999).

Many states have also invested state dollars in Head Start programs, which have enabled Head Start grantees to serve additional children and families. Thirteen states appropriate state funds to supplement the Federal Head Start program (Mitchell, Ripple, & Chanana, 1998). For example, Ohio provides approximately \$90 million annually for Ohio Head Start, which enables almost 21,000 low-income children to be served by the program, in addition to the 33,400 children served with Federal Head Start funds (Mitchell, Ripple, & Chanana, 1998).

Unfortunately, there is little comprehensive information on the quality of care provided to young children across the country. Quality of care may vary both within and across different types of settings. Recent research raises concern that in many instances, care is poor or minimally acceptable (Cost, Quality and Child Outcomes Study Team, 1995; NICHD Early Child Care Research Network, in press). At the

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same time, studies are revealing better outcomes for children who attend classrooms that meet professional standards, thus emphasizing the importance of quality environments (NICHD Early Child Care Research Network, in press).

### Implications for Research

*These changes—the expansion of Head Start, the influence of the Head Start program and other contributions to the field of early childhood, and the increase in the number of children in out-of-home care settings that range from poor to excellent quality—pose a variety of challenges for research on the impact of Head Start.*

These changes—the expansion of Head Start, the influence of the Head Start program and other contributions to the field of early childhood, and the increase in the number of children in out-of-home care settings that range from poor to excellent quality—pose a variety of challenges for research on the impact of Head Start.

- ◆ In some Head Start communities the children who would comprise a control group or comparison group are already in other care situations that reflect to varying degrees the Head Start Program Performance Standards and philosophy. For example, Ohio provides preschool services either through Head Start or other state-funded efforts to all low-income children; Georgia and New York offer universal preschool programs for 4-year-olds; and Oregon and Ohio require individual preschool programs to follow Head Start Performance Standards (Ripple, Gilliam, Chanana, & Zigler, 1999). Thus, the care provided in these settings may be very much like that provided through the Head Start program. In these cases, an evaluation will not be able to easily assess the full impact of Head Start by comparing the two groups of children, because some alternative programs have been modeled so closely on Head Start.
- ◆ The increase in the number of child care settings of extremely varied quality, suggests the possibility of impacts that vary depending on the type and quality of child care, prekindergarten, and other settings in which control group children are enrolled.

## THE GROWTH OF HEAD START AND OTHER EARLY CHILDHOOD OPTIONS

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- ◆ A final complicating factor is that many children are in multiple care settings. For example, they may be in Head Start for a portion of the day and then in at least one other care setting for the remainder of the day while their parents work. Recent research on Head Start families illustrates that prior to Head Start enrollment, 49.3 percent of children had been in child care over 10 hours per week. Concurrent with Head Start attendance, 28.1 percent of children were also in child care over 10 hours per week (O'Brien, D'Elia, & Keane, 1999).

These changes create challenges for designing and implementing a study of Head Start impact. But with careful planning and ongoing consideration of these issues, members of the Committee believe a design or designs could be implemented to successfully address these concerns, especially as they relate to identifying and maintaining control groups or comparison groups as defined by Congress<sup>4</sup>.

**I**n 1993, the Final Report of the Advisory Committee on Head Start Quality and Expansion concluded:

A series of substantial and careful reviews has reported that Head Start produces benefits for the children and families experiencing the program (Bronfenbrenner, 1974; Datta, 1979; McCall, 1993; McKey et al., 1985; Zigler & Styfco, 1993). The evidence is clear that Head Start produces immediate gains for children and families. The evidence on the long-term impact of the program has been the subject of some debate (U.S. Department of Health and Human Services, 1993).

The Advisory Committee on Head Start Quality and Expansion also stated:

Head Start is entering an historic period of reexamination, improvement in quality, and expansion of services. The size of the program, its comprehensive services, and diversity of the population it serves, and the fact that it is federally funded suggest a role for Head Start as a national laboratory for best practices in early childhood and family support services in low-income communities. Because Head Start needs to expand and renew itself in order to assume its role as a state-of-the-art technology, there is a concomitant and compelling need for a new, expanded, and formal role for Head Start research (U.S. Department of Health and Human Services, 1993).

*Steps have been taken to expand the Head Start research agenda and understand the relationship between quality and outcomes.*

These statements were made as a result of a review of previous research and belief in the potential of Head Start to shape the early childhood field. Since the report of the Advisory Committee on Head Start Quality and Expansion, steps have been taken to expand the Head Start research agenda and better understand the relationship between quality and outcomes. This chapter provides a brief review of major research findings on Head Start and related early childhood initiatives, as summarized by past literature reviews, conclusions of previous expert panels, and ongoing research initiatives that are most relevant to



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the question of program impact. The Committee did not deliberate explicitly on the relative quality, value, or utility of these past findings, but rather used this history as a context for shaping its deliberations about the future.

### **Previous Research on Head Start and Other Early Childhood Programs**

The results of the first national impact study of Head Start, conducted by the Westinghouse Learning Corporation in the late 1960s, concluded that summer Head Start programs had little or no effect on children, and that full-year Head Start programs benefited children's school achievement, but such effects tended to fade out by the third grade (Westinghouse Learning Corporation, 1969). Although these results created repercussions in the Head Start policy community, researchers recognized that the study was seriously flawed through the use of a post-test-only design (so that it was impossible to adequately control for initial differences between Head Start and comparison children), and outcome measures that narrowly focused on cognitive development at the expense of the full range of developmental outcomes that represented the goals of Head Start. Subsequent small studies illustrated that there were immediate benefits from participation in Head Start on IQ tests or other cognitive instruments (Bissell, 1971; Smith, 1973; Miller & Dyer, 1975; Zigler, Abelson, & Trickett, 1982).

In 1981, the Department undertook a multi-year effort to synthesize all the early research on Head Start, both published and unpublished. More than 200 reports were studied, and 76 of these became part of the meta-analysis (McKey, et al., 1985)<sup>5</sup>. The Synthesis and Utilization Project concluded that:

children enrolled in Head Start enjoy significant immediate gains in cognitive test scores, socioemotional test scores and health status. In the long run, cognitive and socioemotional test scores of former Head Start students do not remain superior to those of disadvantaged children who did not attend Head Start. However, a small subset of studies find that former Head

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Starters are more likely to be promoted to the next grade and are less likely to be assigned to special education classes. Head Start also has aided families by providing health, social, and educational services and by linking families with services available in the community. Finally, educational, economic, health care, social service, and other institutions have been influenced by Head Start staff and parents to provide benefits to both Head Start and non-Head families in their respective communities (McKey, et al., 1985).

More recently, a study using data from the National Longitudinal Survey of Youth compared scores from tests of receptive vocabulary for Head Start children with those of siblings who did not attend Head Start but either had no preschool or attended another type of preschool. The study found large and significant gains in test scores for both White and African American children over their siblings; there were also gains for Hispanic children (Currie & Thomas, 1995; Currie & Thomas, 1996). Furthermore, for White children, effects of Head Start were greater than effects of attending other preschool programs. However, among African American children, the gains were quickly lost. The study also illustrated that both White and African American children who attend Head Start or other preschools gain greater access to preventive health services (Currie & Thomas, 1995).

In addition to this specific research on Head Start, many other studies have been conducted in the early childhood field that provide some indication about the effectiveness of high quality services, including the following:

- ◆ Longitudinal data from the High/Scope Perry Preschool Project and other model preschool programs showed that despite the apparent fade-out of certain effects, children served in preschool programs showed positive longer-term effects on such important outcomes as special education placement, high school graduation, and arrest rates (The Consortium for Longitudinal Studies, 1983; Schweinhart, Barnes, & Weikart, 1993).

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- ◆ Other program evaluations provide clear support that the early intervention high quality child care experiences enhanced children's cognitive and language development, at least for the duration of the intervention (Haskins, 1989; IHDP, 1990; Ramey et al., 1992; Lazar & Darlington, 1982; O'Connell & Farran, 1982). Compared with those in the control groups, low-income children who attended high quality child care centers displayed higher cognitive scores during the preschool years (Lazar & Darlington, 1982; IHDP, 1990; Burchinal, Lee, & Ramey, 1989). For some of the most intensive early childhood programs, cognitive, academic, and social benefits have endured into adolescence and early adulthood (Garber, 1988; Zigler, Taussig, & Black, 1992; Campbell & Ramey, 1994; Yoshikawa, 1994; Yoshikawa, 1995; Campbell, 1999). In addition, compared with control group children, children who received early interventions were more likely to be promoted in school, graduate from high school, and become productive young adults (Lazar & Darlington, 1982; Schweinhart, Barnes, & Weikart, 1993). In contrast, control group children were more likely to be retained in grade, be placed in special education, and drop out of school (Lazar & Darlington, 1982).
- ◆ Barnett's recent review of 36 studies of early childhood programs (including some Head Start programs) concluded that they can produce large effects on IQ during the early childhood years and sizable persistent effects on achievement, grade retention, special education, high school graduation, and socialization. He found that the effects depend on program quality and are larger for well-designed intensive early childhood care and education interventions than for ordinary child care (Barnett, 1995).

*High quality child care experiences enhanced children's cognitive and language development.*

While this research is based on a wide range of programs, many of the other efforts share features with Head Start, including the population served, goals, program strategies, and conceptions of high quality and best practices in serving young children and families. As such, their

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findings have provided support for continued investments in early childhood programs and Head Start.

In response to a congressional request for a review of the literature about Head Start's impact, the General Accounting Office (GAO) examined studies of Head Start participation in 1976 or later to determine what the studies suggested about the impact of the program. In a 1997 report to Congress, the GAO stated:

Although an extensive body of literature exists on Head Start, only a small part of this literature is program impact research. This body of research is inadequate for use in drawing conclusions about the impact of the national program in any area in which Head Start provides services such as school readiness or health-related services. Not only is the total number of studies small, but most of the studies focus on cognitive outcomes, leaving such areas as nutrition and health-related outcomes almost completely unevaluated. Individually, the studies suffer to some extent from methodological and design weaknesses, such as noncomparability of comparison groups, which call into question the usefulness of their individual findings. In addition, no single study used a nationally representative sample so that findings could be generalized to the national program.

*GAO recommended that HHS assess the impact of Head Start by comparing outcomes of Head Start children with those of non-Head Start children.*

And in a 1998 report, the GAO recommended to the Secretary of the Department of Health and Human Services:

To determine whether the Head Start program is making a difference in the lives of those it serves, we recommend that HHS assess the impact of regular Head Start programs by conducting a study or studies that will definitively compare the outcomes achieved by Head Start children and their families with those achieved by similar non-Head Start children and families.

These conclusions and recommendations by the GAO stimulated considerable attention and debate and were one of the factors leading to the charge of this Advisory Committee.

## Call for a Revitalized Head Start Research Agenda

Beginning in the late 1980s and continuing to date, the Department has regularly sought the advice of experts to identify the best ways to conduct research on Head Start including approaches to studying the effectiveness of the Head Start intervention and the relationship between quality and outcomes. In addition to frequent consultation with leading researchers, the Department brought together three expert panels that helped identify areas for future research and helped shape a revitalized Head Start research agenda.

### *Advisory Panel for the Head Start Evaluation Design*

In 1990, the Advisory Panel for the Head Start Evaluation Design Project commonly referred to as the Blueprint Committee was created to conduct a systematic analysis of the research needs relevant to the future of Head Start and to recommend a series of options for the evaluation of the Head Start program. As a result of their deliberations, the committee called for the establishment of an overall research strategy and a set of guiding principles, rather than specific studies or design alternatives. The overall strategy and general principles were organized around two principal questions: (1) Which Head Start practices maximize benefits for children and families with different characteristics under what types of circumstances? and (2) How are gains sustained for children and families after the Head Start experience? The Department subsequently organized various research and evaluation activities within this general framework.

### *Advisory Committee on Head Start Quality and Expansion*

In 1993, the Department created the Advisory Committee on Head Start Quality and Expansion with the goal of reviewing the program and making recommendations for improvements and expansion. The Advisory Committee's report recommended strengthening the role of research. Specifically, the Advisory Committee called for five major

*The Department has regularly sought the advice of experts to identify the best ways to conduct research on Head Start including approaches to studying the effectiveness of the program and the relationship between quality and outcomes.*

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actions: (1) build a strong and enduring infrastructure for Head Start research to ensure that Head Start is able to carry out its leadership role on an ongoing basis, (2) conduct new Head Start research focusing on quality and other policy issues, (3) conduct longitudinal research on children and families served in Head Start programs, (4) expand the partnership between research and practitioners by encouraging better communication and better utilization of data, and (5) develop a long-term research plan for Head Start which places Head Start in the broader context of research on young children, families, and communities, ensures a commitment to ongoing themes, and has the flexibility to respond to new and emerging issues.

### *National Academy of Sciences Roundtable on Head Start Research*

In 1994, the Department funded the National Academy of Sciences to convene a Roundtable on Head Start Research. The Roundtable was charged with identifying directions for research on Head Start's families. The Roundtable identified three broad areas that had not been adequately explored by research: (1) the challenges posed to Head Start by the increasing ethnic and linguistic diversity of the families it serves; (2) the need to embed research on Head Start within its community context, paying specific attention to the effects on Head Start and its families of violent environments; and (3) the implications of the changing economic landscape and the structure of income support policies for the poor for how Head Start works with families, and what it means to offer families a high quality program.

*Taken together, these expert panels helped refine and expand the ongoing set of Head Start research activities in order to maintain its role as a national laboratory for early childhood research.*

Taken together, these expert panels helped refine and expand the ongoing set of Head Start research activities in order to maintain its role as a national laboratory for early childhood research. They did not recommend a study of impact as conceived by the Head Start Amendments of 1998, in part because members of the various committees believed the short-term impact of Head Start had been adequately documented by the Synthesis and Utilization Project.

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## Current Research on Head Start

The recommendations from the Blueprint Committee, the Advisory Committee on Head Start Quality and Expansion, and the National Academy of Sciences Roundtable, along with other sources of input, were taken into consideration as the Administration on Children, Youth and Families of the Department developed the current overall Head Start research agenda. This revitalized agenda addresses six broad areas: (1) focusing research on quality, (2) conducting longitudinal research on children and families, (3) evaluating services for infants and toddlers, (4) studying emerging innovative strategies, (5) studying special subpopulations, and (6) developing and enhancing capacity for research on Head Start in partnership with the larger early childhood and development community<sup>6</sup>. The studies being conducted in each of these broad areas will provide useful information about Head Start and child development in general. The question of impact is part of, but not central to, much of the current research efforts.

*The question of impact is part of, but not central to, much of the current research efforts.*

Current Head Start research efforts most relevant to the question of impact are the:

- ◆ Family and Child Experiences Survey (FACES);
- ◆ Early Head Start Research and Evaluation Project;
- ◆ Head Start/Public Schools Early Childhood Transition Demonstration Project;
- ◆ Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K) and the Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)<sup>7</sup>; and
- ◆ Head Start Quality Research Centers (QRCs).

### *Family and Child Experiences Survey*

The Family and Child Experiences Survey (FACES) is a study of 3,200 families with children enrolled in 40 nationally representative Head Start programs. The study began in 1997 and will be collecting longi-

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*The overall purpose of FACES is to provide descriptions of the characteristics, experiences, and outcomes for children and families served by Head Start and to observe the relationships among family and program characteristics and outcomes.*

tudinal data on these children through first grade as part of Head Start's responsibility to gather information for the Government Performance and Results Act of 1993. In addition, an embedded case study is being conducted of 120 families randomly selected from the larger FACES sample. The overall purpose of FACES is to provide descriptions of the characteristics, experiences, and outcomes for children and families served by Head Start and to observe the relationships among family and program characteristics and outcomes.

FACES will be able to compare the developmental status of Head Start children with their same-aged peers in the following ways:

- ◆ Comparison of Head Start children's scores with overall age norms on the Peabody Picture Vocabulary Test, the Woodcock-Johnson Psychoeducational Battery-Revised (Letter-Word Identification, Applied Problems, and Diction tasks), the McCarthy Scales of Children's Abilities (Draw a Design and Numerical Memory subtests), and the Test of Language Development phonemic analysis subscale;
- ◆ Comparisons of the rate of development shown by Head Start children with the rate of development of all preschoolers of the same age using national normative information;
- ◆ Comparison with children from low-income families who have not attended Head Start but who are part of other studies using the same measures; and
- ◆ Comparisons among Head Start children who participate in the program for varying duration.

In addition to the above comparisons, FACES will be able to relate differences in children's development and family behavior to program quality measures and other aspects of the Head Start centers and programs the children attend.

Further, FACES has incorporated portions of the ECLS-K assessment instruments (a description of ECLS-K follows) into the FACES kinder-



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garten and first grade follow-up. This will allow the tested achievement of Head Start graduates to be compared with the achievement of a large, nationally representative comparison group who attend other programs (e.g., publicly funded prekindergarten programs).

Some of the latest findings from the FACES study include:

- ◆ Early Childhood Environment Rating Scale scores were consistently good over two years, within the national sample of 40 programs. At three time points, approximately 75 percent of observed classrooms were rated good quality or higher. No classrooms scored below a minimal level of quality, unlike many studies of other preschool and child care settings (Administration on Children, Youth and Families, 1998a; Resnick & Zill, 1999).
- ◆ Observed Head Start classroom quality is linked to child outcomes. For example, children score higher on early literacy measures when they experience richer teacher-child interaction, more language learning opportunities, and a classroom well equipped with learning resources (Administration on Children, Youth and Families, 1998a).
- ◆ Children in the highest quarter of the Head Start sample scored close to the national mean on vocabulary, math, letter identification, and dictation tasks at the end of Head Start, although the median score for Head Start children was approximately 10 points below the national mean. Children in Head Start made significant gains in some areas (i.e., vocabulary knowledge and social skills) compared to national norms. At the same time, there are other areas (i.e., letter recognition and problem behavior) where current progress seems inadequate, suggesting Head Start programs could be doing more (Zill, Resnick & McKey, 1999).
- ◆ By the end of kindergarten, however, Head Start children showed significant gains in knowing letters, writing

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letters, and writing their names compared to national norms. They also improved in awareness of word sounds and familiarity with books and print conventions. The top quarter again scored at national norms at the end of kindergarten, similar to the findings at the end of Head Start (Zill, Resnick & McKey, 1999).

The Department is building on the FACES study in two other respects. First, the Administration on Children, Youth and Families is conducting a feasibility study to identify and assess methods for contacting and interviewing families who are eligible for Head Start within the FACES neighborhoods but not currently served by the program. The findings (available by the summer of 2000) will assist in identifying potential comparison groups for future evaluation studies and will provide information for the improvement of recruitment procedures for individual programs. In addition, the Administration on Children, Youth and Families is funding the design of a study of quality enhancements in Head Start programs, including enhancements in areas of letter recognition, reading concepts, and emerging literacy. This study is intended to explore potential causal links between program/classroom characteristics and child performance. The report on the research design will be available by the summer of 2000.

### *Early Head Start Research and Evaluation Project*

The Early Head Start (EHS) Research and Evaluation Project is a study of approximately 3,000 low-income families with infants and toddlers served by the EHS program. EHS, initiated by the Federal government in 1995, represents a new phase of Head Start that serves low-income pregnant women and families with infants and toddlers. Seventeen programs were selected from the first two cohorts to participate in the national evaluation; 16 of the programs are participating in additional site-specific research. These programs were selected from nearly 50 that applied to become part of this research effort and are highly similar to the rest of the programs from which they were selected. All programs in the national evaluation recruited twice as many families as they could serve, and the evaluation contractor randomly assigned families either to the EHS program or a control group.

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The EHS impact study will provide information on the overall impact of the program on children and families; differential effects for families with certain characteristics; differential impacts related to differences in program implementation, program theories of change and quality of child development services; and how within-program variations in services delivered affect child and family outcomes. An interim report will be available in 2001 followed by a final report on program impact in 2002.

In addition, a longitudinal study is being planned that will follow the children and families in these EHS research sites. The longitudinal study will follow children through entry to kindergarten and will answer a number of questions, including the effects on children of continuous, five-year quality early childhood experiences (e.g., participation in EHS followed by participation in the traditional Head Start program) compared to less intense, discontinuous, or low-quality program experiences.

*The Early Head Start impact study will provide information on the overall impact of the program on children and families, and differential effects for families with certain characteristics.*

### *Head Start/Public Schools Early Childhood Transition Demonstration Project*

The Head Start/Public Schools Early Childhood Transition Demonstration Project commonly known as the Transition Project is a longitudinal study of 7,515 former Head Start children, their caregivers, teachers, and principals through third grade. The study was designed to determine the effects of the transition demonstration on children, families, the Head Start program, the public school system, and the community; and to assess the effectiveness of the transition concept as a means for the maintenance and enhancement of early gains achieved by Head Start children and families. Demonstration grants were awarded to 31 sites. Grantees were required to randomly assign schools to either a demonstration or a control condition. A consortium was formed among the national and local evaluators to develop the design for the national evaluation. At the same time, 22 of the sites were given funds to collect the core measures on non-Head Start graduates who were attending schools in the study. There was considerable variability, however, among the sites in sample selection and the ability to follow these children over time. The final report on the evaluation is expected in the fall of 1999.

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### *Early Childhood Longitudinal Survey-Kindergarten Cohort*

*The Early Childhood Longitudinal Survey-Kindergarten Cohort will test hypotheses about the effects of a wide range of family, school, community, and individual variables on children's development, early learning, and early performance in school.*

The Early Childhood Longitudinal Survey-Kindergarten Cohort (ECLS-K) is a longitudinal study of a nationally representative sample of children from the beginning of kindergarten through fifth grade to test hypotheses about the effects of a wide range of family, school, community, and individual variables on children's development, early learning, and early performance in school. Started in the fall of 1998, the study includes approximately 18,000 children enrolled in 931 schools nationwide. There are about 2,933 children in the sample whose parents report they have been in Head Start at some point. These reports will be verified. Data will be available beginning in the spring of 2000.

The longitudinal data will include information on an array of child development measures that are directly related to school readiness and social competence. These include: direct assessments of early reading skills; direct assessment of early math skills; direct assessment of general knowledge; teacher ratings of children's approaches to learning, social skills, and problem behavior; direct assessments of fine and gross psychomotor skills; direct measures of children's height and weight, as well as parent and teacher reports on children's health status. These measures will be available at kindergarten entry, at the end of the kindergarten year, at the beginning of first grade (for a subsample) and at the end of first grade. In addition, ECLS parent questionnaires are collecting demographic and socioeconomic descriptors of the children and families, making it possible to match and control for differences between low-income children who have or have not attended Head Start. These descriptors include: parent education levels, family income, race and ethnicity, disability status, minority language status, family structure, parents' employment status and history, number of siblings, welfare dependence, and others.

### *Early Childhood Longitudinal Survey-Birth Cohort*

*The Early Childhood Longitudinal Survey-Birth Cohort will provide detailed information on a nationally representative sample of children born in 2000 who will be followed from birth through first grade.*

The Early Childhood Longitudinal Survey-Birth Cohort 2000 (ECLS-B) will provide detailed information on children's development, health, and early care and education on a nationally representative sample of 15,000 children born in 2000 who will be followed longitudinally from birth through the end of first grade. The design will capture data about children's homes, communities, health care, non-parental care, and

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early childhood programs. Preliminary data will be available in the spring of 2002. The complete results measuring children from birth through first grade will be available in 2008. A Head Start substudy will enhance the information about the types and quality of care received by approximately 1,200-2,400 young children from low-income families and the consequences of differences in care quality for children's development and later academic achievement. Further, it will provide information about the decisions that families make related to selection of care and education settings, including Head Start.

### *Head Start Quality Research Centers*

In response to concerns that the most rigorous methodological approaches were needed to measure the effectiveness of Head Start, in 1997 the Department asked the four Head Start Quality Research Centers (QRCs) to test the feasibility of conducting randomized studies within Head Start programs at their respective sites<sup>8</sup>. While the experiences of the QRCs varied, a pattern emerged of similar opportunities and challenges in their investigations of the effectiveness of using randomized designs to test the impact of Head Start. For example, the QRCs found that:

- ◆ Implementation of the research was critically dependent on the development of trusting working relationships between researchers and Head Start program administrators and other staff, necessitating ample time for researchers and Head Start staff to plan such research. Obtaining endorsement of the study and its goals at many program levels (Policy Council, director, coordinators, teachers, and family service workers) helped increase compliance with study procedures.
- ◆ The programs that cooperated in random assignment of children to Head Start and non-Head Start groups were extraordinarily open and responsive to the procedures of random assignment. Random assignment was so challenging for some programs, even willing ones, that it could not be implemented. This raises serious questions about the feasibility of a study that involves both random

*In 1997 the Department asked the four Head Start Quality Research Centers to test the feasibility of conducting randomized studies within Head Start programs.*

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selection of programs and random assignment of children.

- ◆ All QRCs found it a significant challenge to locate a sufficiently large sample of Head Start eligible children to create a control group. Some focused their efforts on programs that typically have long wait lists; others worked with programs where staff were willing to recruit significantly more children than in previous years. Random assignment was accomplished most smoothly when the program's typical recruitment and enrollment procedures were changed very little.
- ◆ The QRCs experienced varying rates of attrition from the control groups. In some cases, the compliance rates of children and families randomly assigned to the control group was very low.
- ◆ Head Start programs operate with widely varying formats (center-based, home-based, full-day, half-day); procedures (when and how recruitment and enrollment take place); and policies (some children may have priority enrollment). The QRC feasibility studies had to adapt their research design to these differences.
- ◆ Study designs needed to acknowledge the increased presence of state-operated and other prekindergarten programs and other child care options and plan for ways to observe the control group children in these environments.
- ◆ Assessing the environments of control group children in the same way as Head Start children was sometimes difficult. Other child care centers and family child care homes attended by some of the control group children were more likely to refuse an observation visit than were Head Start classrooms.
- ◆ Data on quality of the classrooms and attendance of the children were needed in the analysis plan in order to gauge implementation efforts.

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- ◆ Implementation of the research placed additional work demands on Head Start program staff. Attention should be given to the staffing needs and training requirements to carry out such research, by providing incentives or adding additional staff who are dedicated to the research activities.

The four QRC pilot studies were not nationally representative, but this effort to test the feasibility of conducting a random assignment design in Head Start programs provided important information that should be considered as the research design for studying the impact of Head Start is developed further.

Many members of the Committee agree with the Congress and the General Accounting Office that previous and ongoing Head Start research, while offering promise for understanding the relationship between quality and outcomes, should be supplemented in order to more concisely answer the question of impact. They believe that the array of current projects will provide considerable data on Head Start effects on an ongoing basis, chiefly by comparing outcomes to national norms. However, in its discussions of the specific mandate from the Congress for a more conclusive national analysis of impact, the Committee has concluded that additional, well-designed research on impact, within the context of the broader research agenda, is needed to respond to policymakers and to inform the field. As Zigler (1999) states: After 35 years, Head Start deserves a study with an experimental design that permits causal conclusions. The challenge the Committee grappled with was how to design a study that would be credible, feasible, and provide information that would help advance thinking and programming in Head Start and early childhood. This chapter highlighted the previous research efforts and set the stage for understanding what is already being addressed through the revitalized research agenda.

*The Committee has concluded that additional, well-designed research on impact, within the context of the broader research agenda, is needed to respond to policymakers and to inform the field.*

The remainder of this report presents the recommendations developed by the Advisory Committee on Head Start Research and Evaluation in response to the charge of the Congress, the programmatic history and context offered above, the research experience summarized in the previous chapter, and the extensive experience of individual members with research and evaluation in early childhood programs and across broader social policy issues. This chapter sets forth the framework that the Committee recommends to the Department as it embarks on an impact study or set of studies of Head Start. The framework offers the Committee's best thinking on appropriate research questions, criteria, outcomes and related measurement issues, and the overall research design.

Following this chapter on recommendations for a research framework, Chapter V provides a fuller account of the rationale for these recommendations. Thus Chapter V outlines the challenges that the Committee debated—challenges that any research design would have to address—and the strategies that the Committee considered for meeting those challenges. The final chapter completes the discussion of recommendations by providing a set of specific next steps that the Committee offers to the Department, the research community, and the Head Start community, in order to ensure the successful implementation of this research effort.

## Research Questions

### *Recommendation 1*

The foundation for any research design is clarity about the questions to be answered. Therefore, based on members' review of the Head Start Amendments of 1998, their understanding of the Head Start program, and their experience studying human service interventions, the Advisory Committee recommends that two critical research questions be investigated as part of an impact study or set of studies. These questions will be operationalized further during the development of the detailed research design.



## RECOMMENDED FRAMEWORK FOR STUDYING THE IMPACT OF HEAD START

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- ◆ 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?
- ◆ 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 of these two questions is highlighted in the statute in several places and reflects the Congress's interest in learning if, overall, the Head Start programs have impacts consistent with their primary goal of increasing the social competence of children (Head Start Amendments of 1998)<sup>9</sup>. The second question was also central to the recommendations of the 1990 Advisory Panel for the Head Start Evaluation Design, because understanding what works best for whom is important to the work of policymakers and program operators in supporting the continuous improvement of the Head Start program and other early childhood efforts.

In answering this second question, any feasible study or activities will only address some of the many possible sources of variation in impact. Therefore, the Committee spent considerable time discussing the kinds of variation that are most important to be able to explore. As noted below, the Committee is particularly interested in variation that relates to the diverse characteristics of children and communities served, the region of the country, and the quality of programs. To the extent possible, the Committee also believes it is important to look at the variation in impact according to the design and auspices of the Head Start programs (e.g., two-year vs. one-year programs, part-day vs. full-day programs, programs operated by nonprofits vs. programs operated by public schools), and the variable nature of the settings in which control group children are served.

In addition to addressing these two top priority research questions, the Committee believes it is also important for those researchers carrying out the impact study or studies to make every effort feasible to

*What works best for whom is important to the work of policymakers and program operators in supporting the continuous improvement of the Head Start program and other early childhood efforts.*

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communicate information learned as part of the study to participating Head Start programs. For instance, it may be possible to provide descriptive as well as impact information on individual programs to program managers and staff for decisionmaking. Sharing information openly demonstrates respect for the programs and helps them receive a direct and immediate benefit for their involvement in the effort.

Finally, the Committee discussed additional research questions, such as determining the impact of Head Start on communities. While believing that all of these additional questions raise important issues and, if answered, would be helpful to policymakers, the Committee concluded that developing the most feasible design for a study or set of studies, required limiting the research questions to the top priorities identified above.

### Criteria

#### *Recommendation 2*

The Committee believes that an acceptable research design must answer the priority research questions identified above and must satisfy two key criteria:

*An acceptable research design must be scientifically valid, widely credible, and feasible.*

- ◆ An acceptable research design must be scientifically valid and widely **credible**. It must provide evidence that is scientifically convincing and persuasive to a variety of audiences, such as the Congress, the research community, program staff, and parents.
- ◆ An acceptable design must be **feasible**. It must be capable of being well implemented in the real world by Head Start programs and researchers.

Much of the Committee's deliberation focused on the potential tension between these two criteria.

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The Committee also reached consensus on two other criteria that are critical to the study's ability to answer the research questions rigorously and credibly. The Committee believes that a credible study must:

- ◆ Collect information on the quality of services provided to the Head Start children; and
- ◆ Collect the same or comparable information on children in Head Start and control group or comparison children (e.g., services received; quality and intensity of the intervention; and cost, descriptive, and contextual information). The Committee members thought that while there might be exceptions in practice (e.g., control group children in the care of a relative who would not allow observation or children enrolled in a non-Head Start program that is unwilling to be studied), this comparable-information principle was nonetheless extremely important.

Members of the Committee believe these criteria to be important for several reasons. First, based on a variety of existing research, members believe that quality is likely to be a key moderator of the impact of Head Start, and that conclusions about impact will be much less credible and much less useful if this key intervening variable is not carefully measured. Second, the ability to address the second research question, the variation of impact according to the characteristics of the Head Start program, depends centrally on the careful measurement of quality. Third, careful documentation of the experiences of both Head Start and control group children is one important way that the final design addresses the serious concerns raised by members of the Committee regarding the effect Head Start has on the other child care programs available to low-income children in a community, and the potential that this contamination of the control group experience could endanger the credibility of the research. That is, as discussed more fully in the next chapter, some members of the Committee noted that if Head Start programs fulfill their mission of collaboration within the community, they can potentially have a major effect on the quality of other child care programs. In turn, this means that a good Head Start program improves the experiences of children in the control group or comparison

*Quality is likely to be a key moderator of the impact of Head Start, and conclusions about impact will be much less credible and much less useful if this key intervening variable is not carefully measured.*

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*Documenting in detail the experiences of Head Start and control group children provides researchers important information for interpreting the impact findings.*

group, making it much harder for the research to isolate and provide accurate estimates of the impact of Head Start. Documenting in detail the experiences of Head Start and control group children does not eliminate this problem, but it does provide the researchers with information that is helpful in identifying and assessing the extent of the problem when interpreting the impact findings.

As with the discussion of research questions, members of the Committee suggested additional criteria that they believed essential to a successful design. For example, some members of the Committee thought that the design should:

- ◆ Address a limited number of questions, with program impact as the primary question;
- ◆ Examine a limited number of pre-specified child and family outcomes most likely to show the greatest effect as a result of Head Start participation, with the multiple domains of school readiness as the primary child outcomes;
- ◆ Have multiple measures in independent domains;
- ◆ Address racial, cultural, and linguistic differences;
- ◆ Minimize selection, participation, attrition, and measurement bias;
- ◆ Capture how program variation relates to outcomes;
- ◆ Provide information about outcomes as they relate to various quantities of service;
- ◆ Provide for longitudinal evaluation of the children; and
- ◆ Provide information that will be useful for continuously improving Head Start.

The Advisory Committee concluded that no single design nor set of designs can meet all these important criteria. However, elements from

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the list of secondary criteria that are considered most important in guiding the design of the study were debated extensively in arriving at recommendations about preferred design options.

## Outcomes and Related Measurement Issues

### *Recommendation 3*

The Committee recommends that outcome measurement in the study should focus on the multiple domains important to school readiness of children and the parental practices that contribute to the school readiness of children. The Committee also proposes principles that the Department should consider in its detailed design regarding the domains of school readiness to focus on, the nature of the measures that should be used, the need to improve measurement for children of diverse cultural backgrounds and those for whom English is a second language, and the timing of assessments over the course of the research effort.

Rather than identifying specific outcomes and measures for the impact research, the Committee suggested key principles for determining appropriate outcomes that the Department should consider as the operationalization of an impact study or studies continues.

First, consistent with the Head Start Amendments of 1998, the Committee recommends that the multiple domains of school readiness be the central outcomes evaluated as part of the impact study of Head Start. The Committee believes that the broad framework for school readiness defined by the National Education Goals Panel, Goal One Technical Planning Group, and the Head Start Performance Measures provides the right overall framework for the study. As articulated through the Goal One effort and as exhibited in the Performance Measures, readiness must not be perceived narrowly or unidimensionally as there are multiple dimensions that contribute to the overall outcome of school readiness.

*The Committee recommends that outcome measurement should focus on the multiple domains important to school readiness of children and the parental practices that contribute to school readiness.*

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Second, the Committee believes that it is important to balance a broad framework and approach to school readiness with a focus on key measures, so that those measures can be studied carefully over a period of time. The Committee further concluded that it is important to select measures that are linked by empirical evidence to school readiness and to known Head Start effects. These areas include emergent literacy and literacy; social behavior (both positive and negative behavior); health status viewed comprehensively including physical, mental, dental, and nutritional health; and parent variables, including but not limited to childrearing practices and school involvement, that are particularly associated with school readiness.

Third, the Committee recommends building on existing measures (such as the measures used in the FACES study) while at the same time focusing on improving measures in select priority areas. The Committee discussed improving existing measures and developing new measures that are developmentally, culturally, and linguistically appropriate. For example, with increasing diversity among the children served by Head Start programs nationally, it is important to develop measures for assessing the multiple domains of school readiness that are appropriate for children of diverse cultures and those for whom English is their second language. Finally, attention should be paid to selecting or developing measures that provide longitudinal assessments of children from preschool into the early grades.

*It is important to develop measures for assessing the multiple domains of school readiness that are appropriate for children of diverse cultures and those for whom English is their second language.*

Fourth, measurement of outcomes should incorporate multiple modes of assessment for treatment and control group children to the greatest extent feasible (e.g., direct assessment, ratings by parents and teachers, and direct observations of children's behavior). This helps to ensure that determinations about outcomes will be based on more than one method of assessment, thus decreasing potential measurement bias.

The Committee recommends a pre-test and post-test during the Head Start year and follow-up in kindergarten and first grade for both the treatment and control or comparison group children. The Committee also recommends baseline measurement of parent, child, and community variables that are closely associated with child outcomes.

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## Overall Research Design

The Committee considered a wide variety of design options, described in full in Appendix B, in seeking a strategy for addressing the critical research questions, satisfying the key criteria, and operationalizing the principles regarding outcomes and measurement. The Committee chose to recommend a set of core principles and to identify options for implementing those principles in the actual design. The Committee makes the following recommendations about a research design that can effectively balance the tradeoff between credibility and feasibility.

### *Recommendation 4*

The Committee believes that the research design should include random assignment of children and families to Head Start and non-Head Start groups, at a diverse group of sites located across the country that represent the variation in Head Start programs. The Committee spent a considerable portion of its deliberations discussing the feasibility, credibility, and ethics of random assignment designs and concluded, despite considerable concerns and challenges that are outlined fully in the next chapter, that random assignment **within the framework described here** offers the greatest potential to credibly answer the two key research questions and therefore must be an element of the design for assessing impact.

Within the Committee, some members believe that the challenges to the feasibility of random assignment in a Head Start context are modest, while others believe they are grave. However, all members concluded after reviewing the evidence (including evidence from feasibility studies involving random assignment conducted by the Quality Research Centers through partnerships with local Head Start programs) that a credible impact study or set of studies needs to include random assignment of children to Head Start and non-Head Start groups in order to respond to the criteria established by Congress. The group came to this conclusion because of the methodological power of random assignment in answering causal questions such as the two

*A credible impact study or set of studies needs to include random assignment of children to Head Start and non-Head Start groups in order to respond to the criteria established by Congress.*

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research questions; the difficulty, after a careful and extensive review, of identifying effective alternative designs; and the other features of the recommended design that addressed some of the concerns of Committee members regarding random assignment. Key design features that contributed to this consensus were the criteria for site selection and exclusion described below, the commitment described below to the use of existing information to supplement the random assignment design and to nesting this study in a full and rich overall Head Start research agenda, and the commitment described above to the collection of comparable data for experimental and control group children.

### *Recommendation 5*

*Every effort should be made to ensure that the sites selected are representative of Head Start sites nationally.*

Every effort should be made to ensure that the sites selected are representative of Head Start sites nationally. Diversity should be sought on key criteria (e.g., region of the country and poverty level of the community). Sites should reflect the range of Head Start quality across the country.

The Committee identified four core variables on which the sample Head Start sites used in the research must be diverse, in order to reflect the range of Head Start programs across the nation. During the development of the detailed design, the Department will be able to determine whether the sample needs to be stratified on these variables, or whether other variables should be used. The core variables are:

- ◆ Region of the country;
- ◆ Race/ethnicity/language status;
- ◆ Urban/rural; and
- ◆ Depth of poverty in communities.

Equally important is variation on the dimension of quality, so that the programs studied reflect the existing range of Head Start quality. While



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quality is not likely to be feasible as an initial stratification variable, because it cannot be easily measured in advance of site selection, it is extremely important to measure carefully during the impact study or studies. Quality should be measured across multiple dimensions, with special emphasis on those aspects of quality that link to the outcomes being measured.

Finally, the Committee identified sources of variation across sites that will be useful to consider in analyzing the impact data. These sources of variation include:

- ◆ 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, nonprofit 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.

Committee members also believe it is important to address selection factors in any evaluation of Head Start, whether experimental or quasi-experimental. Unmeasured characteristics of families may influence the choice of Head Start versus other care arrangements and therefore can bias estimates of Head Start's impacts. Similarly, unmeasured characteristics of programs may influence the probability of agreeing to participate in an impact study or studies. Econometric methodologies (such as sample selection models, instrumental variables estimation) may be helpful in modeling such selection processes. These methods often require the collection of data on geographic factors (e.g., for the

*Quality should be measured across multiple dimensions, with special emphasis on those aspects of quality that link to the outcomes being measured.*

*It is important to address selection factors in any evaluation of Head Start.*

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family example, factors which might influence child care choices, such as families geographic proximity to Head Start centers or community-level availability of child care slots; for the program example, program factors which might influence decisions to participate in a random assignment study).

### *Recommendation 6*

To ensure that random assignment is feasible, and to ensure that, while the experiment randomly assigns Head Start services among eligible families, it does not lead to reduction of services in any site (an ethical concern to many members of the Committee), sites where Head Start saturates the community (i.e., where there are not enough unserved children to maintain full program service and a control group) would be excluded from the study. The Committee also recommends that the relatively small number of sites that are out of compliance with Head Start standards or are extremely new to the program would also be excluded.

*A key challenge in the random assignment strategy would be the ability of sites to maintain a control group.*

In discussing the experiences of the Quality Research Centers, the Committee noted that a key challenge for programs involved in the study was maintaining full enrollment while also maintaining a control group. As noted earlier in the report, the information currently available shows a national level of service of 48 percent of eligible 4-year-olds and 27 percent of eligible 3-year-olds, but this does not take into account state prekindergarten enrollment and is not sufficiently detailed to show in which or how many sites there is local saturation. This is an area where the Committee suggests the collection of additional information as part of the development of a detailed research design.

Committee members also recommend the exclusion of programs that fail to reflect a minimal level of functioning as Head Start sites. This would include exclusion of programs if they are very new to Head Start or if they are deemed non-compliant based on a Head Start monitoring review. The sense of the Committee was that programs that are not yet providing Head Start services at their typical level of quality should not

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be part of the evaluation. But at the same time, the Committee does not want this exclusion to be so broad that it prevents evaluation of the typical array of Head Start programs.

### *Recommendation 7*

The Committee believes that the Department should consider carefully, in consultation with the Head Start community, what incentives for parents and for sites would be most helpful to secure participation in the study or studies, consistent with the research methodology. The Committee strongly encourages the use of appropriate incentives.

*The Committee strongly encourages the use of appropriate incentives.*

In addition, the Committee believes that the Head Start community should be involved from the beginning in the design and conduct of the research proposed in this report. Building relationships of trust between programs and researchers requires, above all, that programs have the maximum information, involvement, and respect from the research community.

*The Committee believes that the Head Start community should be involved from the beginning in the design and conduct of the research proposed in this report.*

For the research to be successful, Head Start programs must be committed to participating to the maximum extent possible. Because of Head Start's long tradition of involvement in research and demonstration programs, and the program's commitment to continuous improvement, the Committee trusts that the research can be carried out successfully.

Nonetheless, the experience of past research efforts in a wide variety of social programs, as well as the experience of Head Start in particular, suggests that there are many obstacles to program participation and that a variety of incentives may be needed to reduce the obstacles. The Committee believes that the Department should ask programs what they need and should demonstrate its own commitment to the research by attempting to provide incentives to the maximum extent practicable and consistent with high quality research.

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Possible incentives for programs could include compensation for additional staff time required to cooperate with the impact study research, funding for a new classroom (possibly to be funded the year after the research cohort is enrolled), or the provision of additional resources to enable programs to conduct new activities, such as remodeling a classroom, expanding to a new service area, securing vehicles for transportation, or purchasing materials or professional training related to program quality. Another incentive could be professional recognition of the programs involvement with the impact study.

The Committee discussed the particular advantages and disadvantages of offering as an incentive the resources for programs to serve additional children. Under this kind of approach, as part of the overall expansion of Head Start, programs that actively participated in the research would have a special opportunity to expand in a later year. Some members saw two advantages to this approach: (1) that it helps to identify those programs which are not experiencing saturation (because they are more likely to be interested in expansion resources) and (2) that it addresses some of the ethical concerns that programs and researchers may have with random assignment by ensuring that research is tied to expanding the number of children with the opportunity to receive Head Start. However, other members believed that this incentive might not be effective. In addition, because of a concern that the additional classroom might eliminate the potential control group, some members of the Committee proposed that this incentive should only be offered for the year after the cohort that is being studied completes the program. Other incentives that would potentially impact program quality should also be granted after the research cohort completes the program, in order to ensure that the research is measuring the existing range of program quality.

The Committee also discussed incentives that might be appropriate to offer families in exchange for their participation in the research. The Committee believes that this issue deserves more attention and deliberation. The most straightforward incentive for families assigned to the treatment and control groups is a stipend for their participation in each

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interview and observation. Some members suggested consideration of research designs that would guarantee control group families other services, such as receipt of subsidized child care, partial Head Start services such as health services or social service referrals, or books that they can read to their children. However, other members believe that these designs would reduce the ability of the research to answer the impact question by changing the experience of the control group families to be more like Head Start.

### *Recommendation 8*

The Committee discussed at least three options for selecting sites to be part of the randomized experiment. Each strategy has advantages and disadvantages, which should be fully assessed and reviewed by the Department during development of the detailed research design. The three options are:

- ◆ Stratified national random sample. Sites could be selected by taking a nationally representative sample of all Head Start programs, stratified on the variables identified above. Sites that were selected would then be contacted. All those that met the criteria and were able to participate would do so; a quasi-experimental study could possibly be conducted at the sites that did not participate.
- ◆ Stratified national sample with replacement. As above, sites could be selected by taking a nationally representative sample of all Head Start programs, stratified on the core variables. If once selected, a site could not participate, another program with the same characteristics would be randomly selected as a replacement.
- ◆ Purposive sample selected for national diversity. Sites could be invited to demonstrate their interest if they believe that they have a sufficient number of unserved children to be capable of maintaining a control group during the time of the experiment. Sites that fit into the

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stratification cells could be selected from those that demonstrate this capacity.

The Committee recommends that the Department, in the development of the detailed research design, consult with sampling statisticians to gather additional information such as the number of sites that should be in the study or studies and the specifics of various sampling approaches.

### *Recommendation 9*

The Committee discussed the option of using quasi-experimental studies to supplement the information from the random assignment study. This option should be more fully developed and reviewed by the Department during development of the detailed research design.

While the Committee does not believe that the research design should rely solely on a quasi-experimental study because of its limitations in answering the impact questions, some members of the Committee believe such a study should be carried out as a complement to the randomized study. Committee members discussed the potential of a quasi-experimental design to enhance the goal of evaluating the national impact of Head Start, particularly if there was unrepresentativeness in the sample of sites where random assignment of children was implemented. Quasi-experimental designs do not require randomly assigning subjects to control and experimental groups and instead study differences in outcomes for naturally-occurring treatment and non-treatment groups. Even though quasi-experimental designs may be necessary, the Committee urges the Department to allocate as large a share of the funds as possible to the experimental study or studies to ensure rigor by increasing the number of participating sites and families.

*Some members of the Committee believe a quasi-experimental study should be carried out as a complement to the randomized study.*

As the Department develops these options further, the Committee urges the Department to consider the most effective ways to link the impact research with ongoing efforts, such as the ECLS-B, ECLS-K, or FACES studies. There may be opportunities in sites where randomization takes

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place to include a control group consisting of children randomly assigned and a second control group of children that would participate in a quasi-experimental component of the research. The two types of control groups within the same sites would provide an opportunity to calibrate the results of the quasi-experiment against the randomized experiment.

### *Recommendation 10*

The Committee believes that it is critical to draw on information from Head Start's extensive existing research agenda to complement the information gained from the random assignment impact study or studies. Thus, the Committee believes that the impact research proposed here should be a part of a rich and active Head Start research agenda, not a substitute for it. As such, the Department should ensure that the research and findings from the impact study or studies are used in combination with the rest of the Head Start research effort to improve the effectiveness of Head Start programs for children and families.

Members emphasized that many other parts of Head Start's ongoing research agenda are critical to improving the quality of Head Start and other early childhood programs and ensuring better outcomes for children. As the Department allocates resources, the Committee believes that the Department should ensure that the impact research is complemented by a rich array of other studies that focus on quality improvement and results measurement, program variation, and the needs of particular populations of children. This overall agenda should provide information to local Head Start programs, policymakers, researchers, and the early childhood field about how early childhood programs, and in particular Head Start, can most effectively support the development of young children. As noted in the review of ongoing Head Start research efforts in Chapter III, a number of national data collection efforts could contribute to this comprehensive approach to assessing the impact and improving the quality of Head Start. For example, the kindergarten and birth cohorts of the ECLS and efforts to continue the FACES research strategy are important potential resources to consider to inform key questions related to the impact of Head Start. Thus, the

*The research and findings should be used in combination with the rest of the Head Start research effort to improve the effectiveness of Head Start programs for children and families.*

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framework for impact research as outlined above is presented by the Committee with the condition that other continuing and new research be supported that will provide information about the link between quality and outcomes; the relative value of program enhancements (e.g., expanded literacy efforts, two years of Head Start, full-day services); and information about services for special populations.

In addition, some members were particularly concerned that the impact research envisioned in this framework would not provide sufficient opportunity to compare different options within Head Start, particularly options that are becoming an increasing part of Head Start's programmatic repertoire. These members asked that the Department pay particular attention in designing its research agenda to the Option II design described in Appendix B as Random Assignment of Sites to Traditional Head Start and an Enhanced Head Start. This option would allow for the study of planned variation of program features or strategies in different Head Start locations, so that different program approaches could be compared directly. It is possible that oversampling as part of an experimental study or set of studies could also enable researchers to compare the different programmatic options within Head Start.

Finally, other members noted the importance of research that would address the costs and benefits of Head Start and other early childhood programs. These members urged the Department to begin a planning effort in this area as part of the continuing research agenda.

Overall, however, the Committee members emphasized the need to use the information gathered as a result of the impact study or studies to inform the field so that the Head Start program can continuously improve its practices to provide an effective, high quality early childhood experience for children from low-income families.

### *Recommendation 11*

Based on the key parameters of its recommended design, the Committee notes that it will not be possible to meet the expected deadlines for a final report by September 30, 2003.



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Because the statute and the Committee recommendations stipulate the collection and analysis of data on children through the end of first grade, all of the design options considered by the Committee would lead to a final report no earlier than the year 2006. The Committee urges the Department to make every effort to ensure that the report is completed by no later than 2006. In view of this expected schedule for reporting on the new impact study or studies, it is particularly important for the Department to report findings from other ongoing research efforts, as discussed in Recommendation 10, in formats and at times that are most useful to policymakers.

In coming to the framework described above, the Committee discussed at length the challenges that the real world of Head Start and early childhood services poses for evaluation research. The Committee was able to draw for these discussions on considerable existing research on the quality and nature of Head Start programs and the children served; on an important but more modest body of research describing the quality, nature, and extent of other child care and early childhood settings for low-income children; on the extraordinary programmatic and methodological experience of individual Committee members; and on the pilot efforts of the Quality Research Centers in implementing randomized studies within Head Start programs. All of these sources of information were very important to the Committee's deliberations.

This chapter summarizes the content of these deliberations through a discussion of questions associated with two central challenges: those related to providing credible evidence of causality in linking outcomes to Head Start participation and those related to assuring that research findings accurately reflect the full range of Head Start programs across the nation. This summary also reflects Committee discussion of a series of eight design options that were generated by members of the Committee. A summary of these options is provided in Appendix B.

### **Challenges Related to Credibly and Accurately Assessing Impact**

*The Committee focused a great deal of its discussion on the feasibility, ethics, and credibility of random assignment of children to Head Start and non-Head Start groups within a site.*

The Committee deliberated extensively about how to determine credibly and through a feasible design the impact of Head Start on children. Because of the methodological strength of a randomized assignment design in establishing causal inference and measuring the impact of an intervention, the Committee focused a great deal of its discussion on the feasibility, ethics, and credibility of random assignment of children to Head Start and non-Head Start groups within a site. The major issues addressed were:

- ◆ The feasibility of successfully implementing random assignment, including whether parents will agree to

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participation in such a design, whether program staff will support its implementation, and whether a sufficiently large control group can be maintained;

- ◆ Ethical issues related to random assignment research methods;
- ◆ The specific feasibility and ethical issues posed by potential exclusion of high-risk children in randomized assignment designs (because Head Start programs currently give priority to these children for enrollment);
- ◆ The effect of Head Start programs on the experience of children in the control groups ( contamination );
- ◆ The challenges of accurately measuring and accounting in the research for the experiences of control group children; and
- ◆ The strengths and weaknesses of alternative strategies for establishing causality, other than random assignment of children within a site.

In general, these issues would be described by researchers as affecting the internal validity of the research effort (i.e., the ability of the research design to provide credible evidence of causality or to attribute observed outcomes to participation in Head Start).

### **Is it feasible to employ random assignment of children to Head Start or a control group and what compliance thresholds would be needed to draw scientific conclusions of causality?**

While nearly all members of the Committee came to the table believing that from a purely methodological perspective, random assignment of children provides the most rigorous basis for causal inferences regarding the impact of an intervention, members also brought to their deliberations extensive experience in assessing when random assign-

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ment can best be applied in practice to achieve scientifically credible results and when it cannot, as well as experience with alternative approaches being considered in the scientific community. Thus, the Committee devoted a great deal of time to discussing the feasibility of approaches that would employ random assignment of children to treatment (i.e., Head Start) and control groups (i.e., non-Head Start settings such as relative care, center-based child care, state prekindergarten programs, or no program).

*Some Committee members note that to be most credible and valid, research participation should have a compliance rate of 70 percent or more.*

A key issue in determining whether random assignment is feasible is understanding whether it will be possible to recruit and maintain a sufficiently large enough control group of eligible children who do not receive Head Start services, as well as an experimental group of children who do. All members believe that steps should be taken to guard against differential attrition between children assigned to Head Start and those assigned to the control group. Some Committee members note that to be most credible and valid, research participation should have a compliance rate of 70 percent or more.

As Committee members discussed this issue, they considered the experience of the Quality Research Centers, the ways in which that experience might change if the impact study or studies were to be more visible and more national in scope, and the experience of evaluations of other social programs. They attempted to assess what considerations might enter into the judgments of parents seeking to decide whether to participate in a randomized study which offered a chance but not the certainty of a Head Start slot, and whether control group parents might in fact seek to enroll their child in another Head Start program located in the next neighborhood or county. They considered the consequences of the design used in some of the Quality Research Centers feasibility efforts, where children in the control group are on the wait list and allowed to enroll in the program should an opening come available. And they sought additional information on the number of sites where the community is saturated, so that it would be very difficult to identify a sufficient number of control group children. Some Committee members felt that a program/wait list design would be crucial to securing participation of families, while others advocated a stable control group without the possibility of crossover into the program. Committee

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members urged that these issues be considered more fully as the Department develops the more detailed research design.

The Committee discussed a number of assumptions that must hold for random assignment to be effectively carried out. Based on the information available, the Committee then chose to develop the design framework described in Chapter IV in order to ensure that these assumptions hold to the greatest degree possible. However, because of the limits of existing information, the extent to which the assumptions will be met remains a question that will only be answered during the development of a more detailed design for the study or studies.

The key assumptions identified by the Committee for the feasibility of random assignment are:

1. Head Start programs must have sufficient numbers of eligible children applying to the program so that a control group can be formed. Nationally, only 48 percent of income-eligible 4-year-olds are enrolled in Head Start, but underserved children are not spread out evenly among all communities, especially in areas with state prekindergarten programs; thus, all programs do not have a large enough pool of children to draw from that will satisfy control group requirements.
2. Families must be able and willing to agree to and honor their assignment, whether to the control group or Head Start group. The Committee discussed the fact that this agreement is most likely in a setting where there are a considerable number of unserved children at a similar level of need, because in those communities, families will not see themselves as signing away an almost certain opportunity to participate in Head Start. Thus, the more the first assumption holds, the more the second assumption will hold. In addition, the Committee discussed possible incentives that might make participation in the research more attractive to families.

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3. Head Start programs in the study must be willing to have random assignment to Head Start and control groups implemented in a consistent fashion across all sites. Programs must support the random assignment process by first using a common assessment during recruitment across all study sites and then accepting random assignment decisions made by researchers based on this assessment. This issue is related to the specific concerns of programs and researchers regarding high-risk children, as discussed more fully below.

### **What are the ethical issues associated with random assignment of children to Head Start or a control group?**

*Some Committee members argued that it is unethical to deny services to children who meet the eligibility requirements and would benefit from Head Start if not for random assignment.*

A variety of perspectives were shared regarding the ethics of randomly assigning children to Head Start or a control group. Some Committee members argued that it is unethical to deny services to children who meet the eligibility requirements and would benefit from enrollment in the Head Start program if not for random assignment. Denying services means withholding an opportunity for an enriched early childhood experience that is believed to facilitate overall child health and development. Other Committee members offered a range of arguments supporting the ethics of random assignment, including:

- ◆ Anytime a Head Start program has a waiting list or unserved children who are not identified, the program is in effect denying services to children;
- ◆ Ethical concerns about random assignment are diminished provided Head Start programs provide services to as many or more children than they would have served had they not been part of the study;
- ◆ Random assignment may be viewed as ethical because it offers the best approach to generating highly credible findings that can be used to gain additional support for and investment in the Head Start program; and

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- ◆ Ethical problems are diminished if Head Start has influenced other community early childhood services so that they are as good as Head Start.

In the end, the Committee concluded that with the provisions in the research framework intended to ensure that no site will serve fewer children as a result of the research (and indeed with the possibility of linking the research to later expansion in services), random assignment for the purposes of impact research as defined by Congress is an ethical approach that offers important benefits to the future of Head Start.

### **What specific challenges to the feasibility and ethics of random assignment are raised by the treatment of high-risk children?**

The Committee discussed specific issues relating to children who are assessed by Head Start programs as high-risk. Currently, programs use a variety of initial risk assessment strategies and instruments and then give priority to the highest risk children. Members noted that children who are at particularly high risk (for example, through a combination of family risk variables and a child's disability) may currently be assured admission in some programs. Members discussed the ethical issues posed by denying admission to such high-risk children, given the potential of Head Start to improve their circumstances, as well as the likely choices that parents in such a situation would make regarding participation in the research. They also highlighted the fact that the more exemptions are granted, the less the findings will be generalizable to the full range of children that Head Start serves.

The Committee discussed several approaches to this issue without endorsing any of them and would encourage the Department to review this issue carefully in the development of the detailed design, with an eye toward creating a research sample that allows findings to be generalized to the full range of children and families that Head Start serves. The primary approaches discussed were to:

- ◆ Identify a high-risk cut-off, and exclude all children above that cut-off from the study or studies, thereby guaranteeing

*In the end, the Committee concluded that within the framework described here, random assignment is an ethical approach to studying impact.*

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them access to the Head Start program. This strategy was used in several of the Quality Research Center pilot studies. While this strategy makes the Head Start impact research less fully representative of Head Start's impact across the full range of children currently served, it could be considered if the number of children who need to be excluded is small.

- ◆ Use a sampling strategy where high-risk children have a greater probability of being selected into Head Start rather than the control group compared to lower-risk children, but where they are not guaranteed admission.

### **Is it feasible to design an impact study (or set of studies) where the programs the control group children attend and the services they receive are not affected by Head Start?**

The assumption behind an experimental design is that the control group is not influenced by the treatment. If the control group is affected, the study results will be contaminated and will likely underestimate the impact of the program. In other words, contamination exists when children in the control group receive all or part of the Head Start program services. Committee members discussed this issue extensively, drawing on the limited available evidence about the programs and services available to low-income children not in Head Start. Given the limits of the evidence, Committee members reached different conclusions about the gravity of the threat to internal validity and credibility of the research posed by this issue. As noted in Recommendation 2 in Chapter IV, the Committee believes that careful documentation of the experiences of control group children is critical to assessing the extent of this problem and interpreting the research data in light of it.

*Head Start is not only an individual- or family-level intervention, but a community-level intervention as well.*

During the course of this discussion, Committee members identified ways in which Head Start programs potentially influence the care of children not enrolled in Head Start.

- ◆ Head Start is not only an individual- or family-level intervention, but a community-level intervention as well. The Head Start Performance Standards call for programs to



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orchestrate community partnerships that reach non-Head Start children and families. As such, the program often influences the services and supports provided by other local child development programs. For example, some Head Start programs extend their training sessions to local child care providers. Thus, the child care settings of comparison children could be of high quality because of their partnerships with Head Start or because their teachers were trained by, or were past employees of, Head Start.

- ◆ Head Start also seeks to support parents. If Head Start programs are working effectively, parents will become more effective advocates for their children in the community, thus potentially improving the quality of services for other children as well.
- ◆ In some places, early childhood programs that are aspiring to excellence are adopting or adapting the Head Start Performance Standards in addition to other accreditation systems or best practice guidelines.
- ◆ Within families, effective Head Start programs will also help parents develop practices that support their role as their child's first teacher. These practices not only benefit the current child enrolled in the program, but they also benefit other children in the family, so that if control group children have siblings who have been in Head Start, their own experience may be affected.

Some members of the Committee believe that these influences, along with the congruity in program design between Head Start and many state prekindergarten programs, have a widespread effect on the experiences of control group children. Others believe that the effects are much more limited. Members in the first group also point out that the better and more effective a Head Start program is, the greater the contamination could be and the smaller the impact measured by the research (the program-control group difference) is likely to be.

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Members in the second group point out that despite these influences, existing research suggests that the child care settings experienced by low-income children not in Head Start can be of lower quality and that a body of research evidence suggests the difficulty of disseminating innovations.

However, despite the difficulty of determining from the available information how serious the concern is, all members of the Committee recommend several strategies that are incorporated in the design framework described in Chapter IV and that would minimize so far as possible the threats to the research from this source. These strategies include the following:

- ◆ Assess the quality of both Head Start and control group settings in order to understand control group settings and how they may have been influenced;
- ◆ Avoid situations where there is the greatest degree of contamination of the control group setting (specifically, child care programs that are in partnership with Head Start, blend funds, and/or have adopted Head Start Program Performance Standards); and
- ◆ Embed the impact study in a rich research agenda, so that multiple sources of information are available to offset the disadvantages of any one study.

*Embed the impact study in a rich research agenda, so that multiple sources of information are available to offset the disadvantages of any one study.*

A related, but not identical issue that received more limited attention from the Committee is the issue of care received outside the Head Start program by children in the treatment group. In particular, children may be in other child care settings for parts of the day or year when they are not in Head Start, which further complicates the determination of effects specifically related to the Head Start portion of their care. The Committee would address this issue through the fullest possible documentation of the nature and quality of the services received by both Head Start and control group children.

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### **What are the challenges for the impact study (or studies) to gather detailed information on the control/comparison group children, including the type, intensity, and quality of care these children receive?**

As noted above, in order to address potential threats to the quality and credibility of the research, the Committee believes it is extremely important that the same data be collected on children whether assigned to Head Start or control or comparison groups. It is critically important to understand the type, intensity, and quality of care that the control group or comparison children receive in order to draw accurate findings about the impact of Head Start versus other child care and education options. It is also important to understand the quality of the care settings that Head Start children are in when they are not in Head Start.

But the Committee members recognize that collecting information on these non-Head Start settings, both for the Head Start children and the control or comparison group, is a challenge and will require significant planning and coordination to ensure that as many local programs and providers as possible are willing to participate in the study or studies. There may be substantial barriers to the agreement of non-Head Start providers—including child care centers, family home providers including neighbors and friends, and children's relatives—to have their practices and care environment described and documented. Thus, any design or set of designs selected for studying impact must pay careful attention to how researchers will gain entry to alternative care settings and what types of data will need to be collected in these settings. It should be expected that there will need to be oversampling for the control group in order to account for higher rates of refusal in these alternative care settings.

One possibility raised for the Department to consider in the detailed design is that an initial general survey could be conducted of all parents and caregivers of control group children. In addition, the settings of a smaller random subsample of the control group children would then be observed with more intensive measures like those being used to study the settings of the children served by Head Start. This would allow testing of the validity of the more general survey responses against the more intensive measures.

*The Committee believes it is extremely important that the same data be collected on children whether assigned to Head Start or control or comparison groups.*

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### **What are the strengths and weaknesses of alternative strategies for establishing causality, other than random assignment of children?**

In response to the concerns described above, the Committee considered two primary alternatives to random assignment of children within a site:

- ◆ A design option which randomly assigned sites to Head Start as it is now or to Head Start enhancements. As described more fully under Option II in Appendix B, this option was offered as an approach to solving the problem of contamination through a rigorous experimental design to compare the effects of the basic Head Start model with program options such as an added focus on literacy services, implementation of various curriculum models, or full-day versus part-day program options. A sequence of such studies would create information about the relative effects of these different forms of Head Start services.
- ◆ Design options which used quasi-experimental strategies to compare children receiving Head Start with naturally-occurring comparison groups (based on existing patterns of parental choice and access to Head Start, other early childhood programs, or no formal early childhood or child care participation). These options were offered to address the ethical and feasibility problems with random assignment.

The Committee concluded after extensive deliberation that the first alternative option offers important information to policymakers and is an attractive part of a full research agenda for Head Start. However, the Committee would not recommend it as the design for the impact study directly required by Congress because it answers a somewhat different (though extremely important) set of research questions.

The Committee concluded that the quasi-experimental options when used alone do not permit rigorous enough causal inference to answer the Congress's question about impact, but the Committee does recom-

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mend that the Department consider whether to use quasi-experimental research to supplement the overall impact study. Some members believe that if executed as planned, experimental research is preferable to quasi-experimental research. Other members contend it is highly likely that the experimental research may not be done as planned, especially with low control group compliance rates as experienced with the Quality Research Centers randomized trials. At that point, quasi-experimental research may become preferable.

### **Challenges Related to Generalizing Findings to the National Head Start Program**

The second major area where the Committee focused its deliberations was on the issue of how to generalize from specific study sites to determine the impact of Head Start as required by the Congress. For the study to answer the key research question about the impact of Head Start, the individual sites where the research is carried out must represent the typical impact of Head Start with the families it typically serves. If the study is based on only a special or biased set of programs, conclusions will not be generalizable to the entire Head Start population.

Two broad approaches, with variants of each, were discussed at length: seeking to understand impact through a nationally representative random stratified sample of sites, or seeking to understand impact through replication of findings at a group of sites that are chosen to represent the total universe of Head Start programs (the typical medical research model for establishing impact). In the end, given the limits of available information, the Committee chose to recommend a set of criteria that the research sites must meet and several acceptable options for selecting a set of sites that meet those criteria. The Committee urges the Department to draw on all available expertise to further develop and select among these options during the detailed design and feasibility stages of the project.

*For the study to answer the key research question about the impact of Head Start, the individual sites where the research is carried out must represent the typical impact of Head Start with the families it typically serves.*

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The Committee considered specific issues in this area:

- ◆ What do we know about the feasibility of randomly selecting sites to participate in the random assignment design? What share of sites is likely to be unable to participate because of saturation of services within communities or for some other reason? What are the advantages and disadvantages of alternative approaches to selecting sites for random assignment experiments?
- ◆ What role should quasi-experimental studies play in assuring reasonable national representativeness?
- ◆ What are the challenges to addressing questions about the impacts of variations among Head Start programs within the impact study or studies?
- ◆ What are the challenges posed by seeking a design that will be relevant for the future evolution of Head Start? To what degree should the sampling process include variants of Head Start that may now be in the minority but that reflect Head Start of the future ?

Most of these issues would be categorized by researchers as affecting the external validity of the research effort (i.e., the extent to which the findings of the individual research sites reflect the reality of Head Start across the nation).

**What do we know about the feasibility of selecting sites at random to participate in the random assignment design? What share of sites is likely to be unable to participate because of saturation or for some other reason? What are the advantages and disadvantages of alternative approaches to selecting sites for random assignment experiments?**

In assessing the feasibility of an impact study that provides information that is generalizable to all Head Start programs, the Committee discussed

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two alternative approaches to assessing national impact that are suggested by the research literature and were proposed by Committee members.

- ◆ A nationally representative sample of Head Start programs requires a national stratified random sample of sites. If successfully achieved, this will lead to estimating the average national impact of the program. As such, it will be the best possible estimate of national impact. However, some Head Start programs cannot assign at random because their communities are already saturated or other reasons. If these programs differ from participating programs in measured ways related to school readiness, then this will indicate a biased national estimate that must then be adjusted within the limits of prevailing statistical methodologies. The sampled and unsampled programs may also differ in unmeasured ways whose effects on national estimates cannot be fully known.
- ◆ Alternatively, a different model of causal generalization widely used in the experimental sciences and quantitative review methods like meta-analysis, does not seek so much a single national estimate as to assess the robustness of Head Start effects across a heterogeneous, diverse sample of locations. While this procedure does not guarantee a single unbiased national impact estimate, it will provide a test of effectiveness across a diverse range of Head Start programs.

The Committee recommends exploring all options for providing a national analysis of the impact of Head Start.

To assess the feasibility of a nationally representative, stratified random sample of sites, the Committee spent considerable time in its deliberations reviewing the existing evidence on the ability of programs

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to participate in the study or studies. In particular, the Committee reviewed:

- ◆ The experience of the Quality Research Centers feasibility studies in securing participation from local Head Start program partners;
- ◆ The experience of other national evaluations of social service programs in identifying local sites that were capable of carrying out rigorous random assignment research; and
- ◆ The limited evidence available on the extent to which local communities are saturated (e.g., do not have enough unserved children to maintain a control group).

Based on this evidence, the Committee discussed several possible reasons why a nationally representative design could be a challenge. Because of the limitations of the available evidence, the Committee did not form a conclusion about the number or percentage of sites that would be unable to participate. Some members of the Committee see the inability of sites to participate as a grave concern that limits the usefulness of a national random sample strategy, while others believe it is a concern that could be handled within such a strategy. The Committee identified the following specific issues from the available evidence:

- ◆ As discussed above, the unserved children who would form the potential control group may be distributed unequally across geographical areas and individual Head Start service areas. Therefore, some locations might not be able to participate due to lack of sufficient numbers of eligible, unserved children. If the design were to exclude communities where Head Start eligible children are largely served in preschool programs that have been heavily influenced by Head Start or use the Head Start Performance Standards, this problem could be accentuated.



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- ◆ The experience of the Quality Research Centers in evaluating local Head Start programs suggests that there is considerable variation in the ability of service delivery sites to participate effectively in rigorous research designs, and that it is necessary to select sites that have both the capacity and interest to do so.
- ◆ Committee members reported similar findings from the experience of other national evaluations of social service programs.

*The experience of the Quality Research Centers suggests that there is considerable variation in the ability of Head Start sites to participate effectively in rigorous research designs.*

In addition, the Committee discussed whether a 70 percent participation rate by sampled sites was an appropriate criterion to use in assessing the feasibility of a sampling strategy. This criterion was proposed as one that has general assent as a best practice in the field. However, some members of the Committee believe that a randomly selected sample of programs could be the best way to select participants even if the participation rate in the end is considerably less than 70 percent, because it would lead to the most representative possible sample. Others believe that this is not the case, because they believe that participation at lower rates would likely indicate bias in participation or because they believe there are major time and resource costs in seeking participation from programs that are unlikely to be able to participate in the end.

Members of the Committee who argued for a stratified national sample, randomly selected, believe that this approach will yield the most representative group of programs, and are hopeful that it will be possible to improve on the prior record of program participation through clear national commitment and leadership in the design of this study, along with appropriate incentives for participation. Members of the Committee who argued for the alternative medical model pointed to the fact that this has been the standard both in the medical literature and in past evaluations of social policy at the national level (such as the national evaluations for Even Start, JOBS, JTPA, and others). They argued that a focus on replication in diverse sites allows for strategies

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to reach the sites that are not saturated and are capable of participating at much lower cost in terms of time and financial resources. Some members in both groups proposed quasi-experimental strategies to fill gaps in the study resulting from non-participation.

Committee deliberations on these challenges and options led to recommendations in Chapter IV related to criteria for site selection (including exclusions), approaches to improving the participation rate of suitable sites through cooperative national leadership and the identification and use of appropriate incentives, and the three potential options for site selection in Recommendation 8.

### **What role should quasi-experimental efforts play in gaining national representativeness?**

The Committee discussed but did not resolve the role of quasi-experimental strategies in supplementing the experimental sites in order to improve the ability of the impact research effort to reflect the whole nation. At least three different quasi-experimental strategies were discussed:

- ◆ Conducting quasi-experiments at a nationally representative sample of sites, for example by identifying a community comparison group in the same location as a national sample of Head Start programs and studying quality and outcomes for both populations of children.
- ◆ Conducting quasi-experiments in the sites that are selected for experimental participation but are unable to participate (under the nationally representative, stratified random sample strategy above).
- ◆ Conducting quasi-experiments in sites that are not invited or do not volunteer for experimental participation (under the purposive sample strategy above), in order to learn about possible differences between volunteer and non-volunteer sites.

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The Committee was not able to reach a conclusion regarding the use of quasi-experimental strategies to supplement the experimental sites. Some Committee members believed that having quasi-experimental studies as part of the impact research agenda would be important, especially if acceptable compliance rates for the experimental research are not achieved. Thus, the Committee recommends that the Department consider the use of quasi-experimental strategies carefully during the development of a detailed design. The Committee also recommends that if the Department chooses to implement a quasi-experimental component to the design, that component should be modest in cost. Among the most important issues to consider in making this design decision are the relationship of the quasi-experimental strategy to ongoing research such as FACES; the best strategies for using information from the quasi-experiment to complement information from the experimental sites; the cost of quasi-experiments in relation to their benefit; and the available strategies for identifying community comparison groups (particularly in saturated locations).

### **What are the challenges to addressing questions about the impacts of variations among Head Start programs within the impact study?**

All Head Start programs share a common philosophy, provide core services, and are required to meet Performance Standards, as explained earlier. Beyond this, local programs are free to vary their practices and approaches. For example, some programs serve only 4-year-olds and others serve 3- and 4-year-olds; some programs operate part-day, part-year and others operate full-day, full-year; and programs are operated by a range of community-based organizations including but not limited to Community Action Agencies and public school systems.

Committee members highlighted this program variability as a key methodological challenge and believe that these dimensions could be related to important variations in impact. Therefore, the Committee urges the Department to develop a research design that documents fully the variability that exists in the sample and takes that variability into account in the analysis as fully as possible. Some members of the

*The Committee urges the Department to develop a research design that documents fully the variability that exists in the sample and takes that variability into account in the analysis as fully as possible.*

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Committee also believe, as noted below, that the Department should consider whether additional studies are needed to assess the variations in impact of different program designs within Head Start.

**What are the challenges posed by seeking a design that will produce findings with maximum relevance for the future of Head Start and other early childhood programs? To what degree should the program selection process include forms of Head Start that may increase in quantity and significance as Head Start programs continue to evolve to meet family and community needs?**

Part of the criticism of early studies of Head Start was that by the time the information became available, the findings were no longer relevant to the program. Thus, the Committee discussed whether the impact study or studies should include analysis of the newest versions of the program (e.g., father involvement initiatives; two years versus one year of services; full-day, full-year services) in order to determine how these permutations differentially influence outcomes for children and families. Such an approach could provide insight into how Head Start and other early childhood programs implement variations on the Head Start model that are responsive to the needs of children and families as changing demographics, work requirements, and other social and economic factors alter the resources and social supports available in communities. The Committee also discussed whether the Head Start of the Future approach could lead to an impact study or studies which went beyond a focus on Head Start alone, to look at the combination of different forms or levels of investment across Head Start, child care, and prekindergarten. Understanding how communities are able to blend these programs would be useful information for policymakers and administrators.

In the end, the Committee concluded that given limited resources and the framework for the research questions identified by the Congress, these other important questions will be only very partially addressed by

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the impact research. The first issue, the effect of emerging program designs within Head Start, can only be addressed to the extent that there is oversampling of programs with those characteristics. The second issue, the impact of community-wide strategies, will not be addressed by this design, although the documentation of the experiences of control group children as well as Head Start children may provide useful background information for future study designs.

Because the first research question, in particular, is so important to the future of Head Start, the Committee does recommend that the impact study or studies must be embedded in a rich overall research agenda for Head Start including attention to program variation. Some members of the Committee would specifically urge the Department to pay particular attention in designing its research agenda to Option II in Appendix B, which would allow for a systematic approach to studying program variation in Head Start, so that different program strategies could be compared directly.

**A**fter the extensive deliberations just described, the Committee believes that the framework outlined in Chapter IV represents the best design available for conducting a national analysis of the impact of Head Start. At the same time, the Committee believes that several key next steps are crucial to translating this design into a credible and feasible research effort on a topic of great national importance. As a result, the members of the Committee call on the Secretary and, where indicated, the broader research community and the Head Start community to commit to the following next steps for implementation.

**Provide strong leadership and support for the impact evaluation.**

The Department, in conjunction with the Head Start community, must provide strong leadership and a clear message that the impact evaluation is important. Such leadership is important for gaining broad support for the research design among local Head Start programs and enabling programs to understand that their participation in the impact study efforts is critical for shaping the future of the program.

**Ensure partnership between researchers and the Head Start community through a full dialogue with the Head Start community, and ensure involvement of Head Start programs from the earliest phases of the design.**

The Committee believes that Head Start programs need to be partners throughout all phases of the design and implementation of the impact study or studies, so that the research is not done on the programs, but rather with the programs full engagement and support.

The Committee believes a full partnership is important because the experience of Committee members, whether in evaluating Head Start or other public programs, suggests that early, complete, and honest sharing of information is essential to successful implementation of a rigorous research design. A true partnership will help to build the necessary trust and collaboration among program staff, families, and

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researchers. Failing to engage Head Start programs and families in this way would risk compromising the impact research as well as making it harder for programs and researchers to collaborate on the rest of the research agenda.

Therefore, the Committee urges the Department and the research community to reach out to the Head Start community to share the recommendations of this Committee and to hear the voices of Head Start programs and families. At the same time, the Committee urges the leadership of the Head Start community to continue to work actively to engage programs and to communicate the importance of well-designed evaluation research to achieving the outcomes programs are seeking for children and families.

### **Collect the range of information and consult the range of experts needed to make the remaining design decisions, determine feasibility, and fine tune these recommendations.**

Throughout this report, the Committee has identified information that is not currently available and that needs to be gathered and assessed in order to make the next level of detailed design decisions. While members of the Committee believe that their recommendations represent the best design given the available information, they are mindful of the limits of that information and believe that the design will need to be fine-tuned, and possibly even changed in more substantial ways, as the missing information is gathered, whether during a formal feasibility phase or as part of the detailed design, planning, or early implementation phases of the study or studies.

Among the questions that Committee members raised for further consideration and investigation were the following:

- ◆ How many unserved children are there and where are they located? How concentrated are they in particular communities, particular regions of the country, and among particular populations of children? Why are these

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families not enrolled in Head Start? Are they enrolled in other programs?

- ◆ What sample size of programs and children is required to achieve adequate statistical power (i.e., the ability to determine impacts in various domains)?
- ◆ What incentives would programs and families need in order to willingly participate in the impact research? Which of these incentives would be most consistent with the design?
- ◆ What is the best way to ensure informed consent, so that families understand their involvement in the impact study or studies and what it means for their ability to access Head Start services for their child?
- ◆ What culturally appropriate measures are available and what measures still need to be developed in order to appropriately capture the development and school readiness of children who speak English as a second language?
- ◆ What experience is there with subject assignment and tracking, data collection, and other design considerations of the magnitude needed for this research effort? Is a field test needed and if so, when and how should it be done?

### **Consider costs and time frames in moving from this design framework to an actual detailed design.**

The Committee notes that the Department will need to consider cost and time frames as it refines the design for the impact study or studies. The Committee urges the Department to set priorities within the design in a way that promotes as much knowledge as possible for the resources invested (for example, the Committee has given explicit guidance on the resource allocation across experimental and quasi-experimental components of the design), and it urges the Department to set priorities across the research agenda as a whole in a way that ensures a rich and active research agenda beyond the impact research itself. That is,



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because the Congress appropriates a limited amount of money each year that can be used for research within Head Start, if the impact design is too expensive, it would compromise the ability to complete other ongoing Head Start research priorities. The Head Start Amendments of 1998 authorized not more than \$5,000,000 for each of fiscal years 1999 through 2003 to carry out impact studies under Section 649(g) (Head Start Amendments of 1998). Thus, the Department ultimately will have to weigh recommendations made by the Committee and decide how best to allocate funds among the priorities.

Similarly, as noted in Recommendation 11 in Chapter IV, with respect to time frame, the Committee notes that none of the options it considered, including the recommended design framework in Chapter IV, would meet the Congressional time frame of producing a final report on the impact study or studies by September 30, 2003. This is because the Committee recommends, consistent with the statutory requirement, that at a minimum data on children should be collected at three points in time (Head Start, kindergarten, and first grade), which would delay completion of data analysis and a final report until approximately the year 2006. The Committee urges the Department to make priority choices so that the deadline does not slip beyond this date, and the Committee also urges the Department to make the fullest possible use of valuable information on outcomes that will be available sooner from other ongoing and new research efforts such as the FACES, ECLS-K, and ECLS-B and to present this information in the forms and at the times that are most useful to policymakers.

### **Commit to taking stock at key points in time.**

No matter how effectively the Department carries out the information collection tasks identified above, the Committee believes that in an effort of this magnitude, much new evidence about the strengths and weaknesses of the design will come to light during the research itself. Therefore, the Committee believes that the Secretary must commit to re-examining the Head Start impact research effort at key points in time to take stock of what is being learned and determine whether changes

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need to be made to the study design. In addition, the Secretary should consider the implications of other research findings from the early childhood field and factor these into any reconceptualization of the Head Start impact research effort. Consistent with the Congressional charge to the Committee, the members of the Advisory Committee would like to indicate their willingness to assist in this ongoing fine-tuning of the design.

### **Conclusion**

In conclusion, the Committee offers the information, ideas, and recommendations of this report to leaders in the Head Start and research communities and to public officials who share the crucial responsibility for shaping the future of America's programs for young children and their families. The Committee believes that the proposed design framework represents the best currently available approach to responding to the important research questions raised by the Congress, based on the present forms and functioning of Head Start programs.

We believe that this proposal for a rigorous, credible, and feasible evaluation of the impact of Head Start on the school readiness of low-income children across the country will contribute to the nation's ability to achieve its goals of providing high quality education and enhancing opportunities for all children. We have sought to design a framework for a national analysis of the impact of Head Start that—in conjunction with the rich and active research agenda now being implemented in Head Start and other early childhood programs—will assist policymakers and the Congress in ensuring that the goals of Head Start are fully accomplished and will help early childhood professionals, in Head Start and other programs, to learn more about how to improve their efforts to enhance results for children.

<sup>1</sup>Goal One of the National Education Goals states that by the year 2000 all children in America will start school ready to learn. This Goal includes five dimensions of children's early development and learning, as described in Chapter II, and three objectives focusing on access to high quality preschool programs, training and supports for parents, and services and experiences to support the physical, social, and emotional well-being of young children. (Kagan, Moore, & Bredekamp, 1995).

<sup>2</sup>The Government Performance and Results Act of 1993 requires Federal agencies to establish standards measuring their performance and effectiveness.

<sup>3</sup>Head Start supports programs for children of migrant farm workers and for American Indian populations. These specific programs are not part of the impact research as mandated by Congress.

<sup>4</sup>The legislation states that the assessment or coordinated assessments include comparisons of individuals who participate in Head Start programs with control groups (including comparison groups) composed of (i) individuals who participate in other early childhood programs (such as public or private preschool programs and day care); and (ii) individuals who do not participate in any other early childhood program.

<sup>5</sup>Only 76 of the studies identified had sufficient information to enable application of the quantitative technique known as meta-analysis.

<sup>6</sup>Appendix C offers a summary of the current six-part research agenda.

<sup>7</sup>ECLS-K and ECLS-B are being carried out by the Department of Education with additional financial support from the Department of Health and Human Services.

<sup>8</sup>The Quality Research Centers (QRCs) were established in 1995 with a set of cooperative agreements at: Education Development Center, Inc. (a consortium that includes Education Development

## ENDNOTES

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Center, Inc., Harvard University, Boston College, and the Massachusetts Society for the Prevention of Cruelty to Children); the Family and Child Care Research Program, Frank Porter Graham Child Development Center, University of North Carolina, Chapel Hill; Georgia State University, Atlanta; and High/Scope Educational Research Foundation, Ypsilanti, MI.

<sup>9</sup>The definition of social competence used by Head Start encompasses multiple domains of development and is comparable to Goal One the readiness Goal of the National Education Goals. The second question is also addressed in the statute, which directs that the Secretary, to the extent practicable, consider addressing possible sources of variation in the impact of Head Start programs (Head Start Amendments of 1998, Section 649(g)(6)).

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# BIOGRAPHIES OF THE ADVISORY COMMITTEE

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## Advisory Committee Chairperson

**Dr. Olivia Golden** is the Assistant Secretary for the Administration for Children and Families. Prior to this appointment, Dr. Golden served as Commissioner of the Administration on Children, Youth and Families, where she helped to create the Early Head Start program, implemented the 1994 reauthorization of Head Start to ensure quality services, created the Child Care Bureau as a new Federal focus on child care, and helped lay the groundwork for the President's Adoption 2002 initiative and the 1997 adoption legislation. Prior to working at the Department of Health and Human Services, Dr. Golden served as the Director of Programs and Policy for the Children's Defense Fund in Washington DC, where she was responsible for policy development, advocacy, research, and data analysis on a variety of issues related to children and families. Dr. Golden received her Ph.D. in Public Policy from the Harvard University Kennedy School of Government.

## Advisory Committee Members

**Dr. Martha S. Abbott-Shim** is a professor in the Department of Educational Psychology and Special Education at Georgia State University. Dr. Abbott-Shim's expertise is in the area of assessing the quality of early childhood teaching practices and policies. She is currently a member of the technical review panel for the Early Childhood Longitudinal Study-Birth Cohort project and the Director of the Georgia State Quality Research Center where she is involved in a random assignment design effectiveness study in Alabama. Dr. Abbott-Shim developed the Assessment Profile for Early Childhood Programs, which is a comprehensive program evaluation instrument for early childhood programs serving children from infancy through school-age and the Assessment Profile: Research Edition which has been used in numerous research studies. Dr. Abbott-Shim received her Ph.D. in Behavioral Sciences from the University of Michigan.

**Dr. J. Lawrence Aber** is the Director of the National Center for Children in Poverty at Columbia University. His basic research interests focus on the social, emotional, behavioral, and cognitive development

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of children and youth at risk due to family and neighborhood poverty, exposure to violence, abuse and neglect, and parental psychopathology. His applied research focuses on process and outcome evaluations of innovative programs and policies for at-risk children and families, including welfare-to-work programs, comprehensive service programs, and violence prevention programs. Dr. Aber received his Ph.D. in Clinical and Developmental Psychology from Yale University.

**Dr. Rosalinda B. Barrera** is a professor in the Language and Literacy Division of the Department of Curriculum and Instruction at the University of Illinois at Urbana-Champaign. Dr. Barrera teaches courses pertaining to early childhood literacy and multicultural children's literature. Her research includes studies of the oral reading behavior (Spanish and English) of young bilingual Mexican American students, their early reading instruction in bilingual classrooms, and the quality and quantity of contemporary Mexican American children's literature. Dr. Barrera received her Ph.D. in Curriculum and Instruction from the University of Texas in Austin, where she specialized in elementary reading education.

**Dr. C. Hendricks Brown** is the Director of Research at the College of Public Health Research and a professor in the Department of Epidemiology and Biostatistics at the University of South Florida. He also serves as an adjunct professor in the Departments of Biostatistics and Mental Hygiene at Johns Hopkins University. Dr. Brown directs the Prevention Science and Methodology Group, which focuses on the development of new designs and analytical methods for evaluating prevention trials. He received his Ph.D. in Statistics from the University of Chicago.

**Dr. Donna M. Bryant** is a Fellow at the Frank Porter Graham Child Development Center, University of North Carolina (UNC)-Chapel Hill. Dr. Bryant directs the UNC Quality Research Center where she is carrying out a random assignment effectiveness study in North Carolina. She is a member of the NICHD Study of Early Child Care Research Network and the Head Start Mental Health Research Consortium, and was a member of the National Academy of Sciences Head Start Roundtable. Dr. Bryant's past research initiatives include

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the Early Head Start implementation study ratings panel, the Infant Health and Development Program, the Head Start Transition Demonstration Project, a Head Start/University Partnership, and a variety of evaluations of programs in early intervention, preschool, and early school years. She received her Ph.D. in Psychology from UNC.

**Dr. Margaret R. Burchinal** is the Director of the Design and Statistical Computing Unit at the Frank Porter Graham Child Development Center at University of North Carolina (UNC), Chapel Hill. Dr. Burchinal is a member of the NICHD Study of Early Child Care Research Network and has been a consultant for the Comprehensive Child Development Program and the Family and Child Experiences Survey. She has also been involved in research on child care quality, low birthweight children, and language development and has extensive expertise in the design and data analysis of complex longitudinal studies. She received her Ph.D. in Quantitative Psychology from UNC.

**Dr. Thomas D. Cook** is a Professor of Sociology, Psychology, Education, and Social Policy at Northwestern University. Dr. Cook's expertise is in experimental design and qualitative and quantitative data analysis, and he has written extensively on evaluations in real world settings. Dr. Cook was a member of the National Academy of Sciences Head Start Roundtable and has been a consultant on both the Comprehensive Child Development Program and the Family and Child Experiences Survey. He received a Ph.D. in Communication Research from Stanford University.

**Ms. Gayle Cunningham** is the Executive Director of the Jefferson County Committee for Economic Opportunity (JCCEO) Community Action Agency in Birmingham, Alabama, and Director of JCCEO's Head Start and Early Head Start Programs. She is a research partner with the Georgia State University Head Start Quality Research Center where the JCCEO Head Start program participated in a random assignment design effectiveness study for the 1998-1999 program year. Ms. Cunningham was formerly an Assistant Professor responsible for coordination of the early childhood AA degree program at Delgado Community College in New Orleans, and a Senior Research Associate

## BIOGRAPHIES OF THE ADVISORY COMMITTEE

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for Bank Street College where she led the expansion of the Child Development Associate credentialing program to include infant and toddler caregivers, home visitors, and family day care providers. Ms. Cunningham received her M.S. in early childhood education, supervision, and administration from Bank Street College of Education.

**Dr. Greg J. Duncan** is a Professor of Education and Social Policy at the Institute for Policy Research at Northwestern University and Deputy Director of the Northwestern University/University of Chicago Joint Center for Poverty Research. Dr. Duncan has published extensively on issues of income distribution, child poverty, and welfare dependency. He is the co-editor of two books on neighborhood poverty and child development: *Consequences of Growing up Poor* (1997), and the two-volume *Neighborhood Poverty* (1997). He is currently investigating the effects of the neighborhood on child and adolescent development and other issues involving welfare reform and income distribution. Dr. Duncan is a member of the interdisciplinary Family and Child Well-Being Research Network of the National Institute of Child Health and Human Development. He received his Ph.D. in Economics from the University of Michigan.

**Dr. Harriet C. Ganson** is an Assistant Director for Education, Workforce, and Income Security Issues in the Health, Education, and Human Services Division of the U.S. General Accounting Office (GAO). Dr. Ganson specializes in early childhood programs and elementary and secondary education programs. Most recently she directed several research and evaluation efforts related to the Head Start program. Prior to her work with the GAO, Dr. Ganson served as a senior project manager with CSR, Inc., a research and evaluation consulting firm. She also taught Sociology courses at George Mason University and Ohio State University. Dr. Ganson received her Ph.D. in Sociology from Ohio State University.

**Mr. Richard F. Gonzales** is the Assistant Deputy Commissioner for the Administration for Children's Services Head Start in New York City. In this position, Mr. Gonzales is responsible for administering, monitoring, and providing technical assistance to the 73 delegate Head Start agencies that provide services to nearly 19,000 preschool children

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and their families throughout New York City. Mr. Gonzales has over 24 years of experience in the early childhood field, working as a child care teacher as well as Assistant Director and Director of the Builders for Family and Youth Head Start. He has also worked as a research partner with Columbia University for several Head Start/University Partnership projects. Mr. Gonzales has a M.S. in Early Childhood Education from the Bank Street College of Education.

**Ms. Sarah M. Greene** is the Chief Executive Officer of the National Head Start Association. She has been involved with Head Start in various capacities since 1969, having served as the President of the National Head Start Association, President of the Florida Head Start Directors Association, Director of a Head Start program, Executive Director of Manatee Opportunity Council and Head Start, Education Coordinator, and classroom teacher. She serves or has served on the following national committees: Impact on Service Delivery of Families with Substance Abuse Problems, National Health/Education Consortium, Child Care Action Campaign, National Association for the Education of Young Children, and the Education Goals One Task Force. She has also served on the Advisory Committee on Services for Families with Infants and Toddlers, Advisory Panel for the Head Start Evaluation Design Project, and Advisory Committee on Head Start Quality and Expansion.

**Dr. Wade F. Horn** is President of the National Fatherhood Initiative, an affiliate scholar with the Hudson Institute in Indianapolis, Indiana, and an adjunct faculty member at the Georgetown University Public Policy Institute. He was the Commissioner of the Administration on Children, Youth and Families and Chief of the Children's Bureau within the U.S. Department of Health and Human Services from 1989-1993. Dr. Horn also served as a Presidential appointee to the National Commission on Children and as a member of the National Commission on Childhood Disability. Prior to these appointments, Dr. Horn was the Director of Outpatient Psychological Services at the Children's Hospital National Medical Center in Washington, DC and an Associate Professor of Psychiatry and Behavioral Sciences at George Washington University. Dr. Horn received his Ph.D. in Clinical Child Psychology from Southern Illinois University.

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**Dr. Jacqueline Jones** is a Senior Research Associate in the Division of Cognitive and Instructional Science at the Educational Testing Service in Princeton, New Jersey. Prior to this position, Dr. Jones served as a faculty member at Lehman College of the City University of New York where she coordinated the graduate teacher training program in learning disabilities. Most recently Dr. Jones has been engaged in a series of school-based research projects that have focused on the documentation and assessment of various aspects of teaching and learning. The projects have included collaborative work with early childhood teachers in several urban and suburban districts to document young children's perceptions of natural phenomenon, the development of procedures to document accomplished teaching, analysis of the decision-making processes utilized by performance-assessment assessors, and an examination of the impact of portfolio implementation on teachers' instructional practice. Dr. Jones received her Ph.D. in Communicative Disorders with a specialization in Language and Learning Disabilities from Northwestern University.

**Dr. Joan Lombardi** is a Senior Associate at the Bush Center in Child Development and Social Policy at Yale University. Dr. Lombardi served as the Deputy Assistant Secretary for External Affairs in the Administration for Children and Families and as the first Associate Commissioner to direct the Child Care Bureau in the U.S. Department of Health and Human Services. She also coordinated the work of the Advisory Committee on Head Start Quality and Expansion and was primary author of its report *Creating a 21st Century Head Start*. She currently serves as an advisor to a number of foundations and national organizations. She received her Ph.D. from the Institute for Child Study at the University of Maryland.

**Dr. John Love** is a senior fellow at Mathematica Policy Research in Princeton, New Jersey. Dr. Love has 28 years of experience conducting research, program evaluations, and policy studies with Head Start, early care and education, and family programs. Trained as a developmental psychologist, Dr. Love has devoted much of his career to understanding issues in providing comprehensive services to low-income families and their children and enhancing the development and well-being of children and families. He is currently directing the national Early Head Start Research and Evaluation Project for the

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Administration on Children, Youth and Families. This study is examining program impacts on infants and toddlers and their families within a randomized design across 17 sites, and includes a comprehensive study of program implementation and quality. Dr. Love is also a principal investigator for a study of infant child care under welfare reform for the Administration for Children and Families, and for the evaluation of Free to Grow, a Robert Wood Johnson Foundation's initiative to implement models of substance abuse prevention through Head Start collaborations with community agencies. Dr. Love has served on numerous panels and advisory committees, including the Head Start Performance Measures Technical Work Group and the advisory panel for the evaluation of the Carnegie Corporation's Starting Points initiative. Dr. Love received his Ph.D. in Child Behavior and Development from the University of Iowa.

**Ms. Patricia Montoya** is the Commissioner of the Administration on Children, Youth and Families (ACYF). Prior to assuming leadership of ACYF, Ms. Montoya was the Regional Director of Region VI for the Department of Health and Human Services. A nurse by training, Ms. Montoya has an extensive clinical background. She received her Masters Degree in Public Administration/Health Administration from the University of New Mexico, Albuquerque.

**Dr. Suzanne M. Randolph** is an Associate Professor in the Department of Family Studies at the University of Maryland. She is currently involved in research for the U.S. Department of Education on the role of family and school in promoting positive developmental outcomes for children in violent neighborhoods. She is also conducting a study of poverty and the ecology of African American children's development for the U.S. Department of Health and Human Services. Dr. Randolph is currently a member of the NICHD Study of Early Child Care Research Network, a member of the Technical Working Group for Early Head Start, and was a member of the National Academy of Sciences Head Start Roundtable. Dr. Randolph received her Ph.D. in Psychology from the University of Michigan.

**Dr. Craig T. Ramey** is the founding Director of the Civitan International Research Center at the University of Alabama at Birmingham (UAB), as well as a Professor of Psychology, Pediatrics, Neurobiology, and Maternal and Child Health at UAB. Among his



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major research initiatives are the Carolina Abecedarian Project, a multidisciplinary primary prevention research program; Project CARE, a comparison of two primary prevention strategies for at-risk children; and the Infant Health and Development Program, an eight-site multidisciplinary intervention study of low-birthweight infants. Dr. Ramey also co-directed the evaluation of the Head Start/Public School Transition Project, a 32-site randomized trial of transition services. He received his Ph.D. in Developmental Psychology from West Virginia University.

**Dr. Peter H. Rossi** is a retired Professor Emeritus in the Department of Sociology and the Director Emeritus of the Social and Demographic Research Institute at the University of Massachusetts at Amherst. Dr. Rossi is also the Director of Evaluation Design and Analysis and faculty Research Associate within the Chapin Hall Center for Children at the University of Chicago. His professional credits include numerous publications, advisory board memberships, and elected positions within several professional research societies. Dr. Rossi's primary research expertise lies in methodology and the design of program evaluations. In addition to his evaluative work, he has also conducted extensive research on such broad-ranging topics as education, crime, and homelessness. Dr. Rossi received his Ph.D. in Sociology from Columbia University.

**Dr. Lawrence J. Schweinhart** is Chair of the Research Division of High/Scope Educational Research Foundation in Ypsilanti, Michigan. Dr. Schweinhart currently directs the High/Scope's Head Start Quality Research Center and is involved in a random-assignment-design effectiveness study at selected Michigan Head Start sites. He is currently involved in conducting an evaluation of the Michigan School Readiness Program. He has also directed a study of the High/Scope Child Observation Record as an assessment of child development in Head Start and has helped conduct and represent the High/Scope Perry Preschool Study and the High/Scope Preschool Curriculum Companion Study since 1975. Dr. Schweinhart received his Ph.D. in Education from Indiana University.

**Ms. Ann Segal** is the Deputy Assistant Secretary for Policy Initiatives in the Office of the Assistant Secretary for Planning and Evaluation

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(ASPE) in the U.S. Department of Health and Human Services (DHHS). Her principal areas of responsibility include issues related to children, youth, and families and the management of ASPE. Prior to 1998, Ms. Segal worked at DHHS for nearly 20 years, as Deputy to the Deputy Assistant Secretary for Human Services Policy where she dealt with welfare reform and a variety of human service issues; Director of the Division for Children and Youth Policy; and Executive Assistant for the Assistant Secretary. Ms. Segal received her M.S. in Education from the University of Pennsylvania.

**Dr. Robert G. St. Pierre** is Vice President of Abt Associates Inc., where for the last 25 years he has been principal investigator for educational research, evaluation, and policy analysis projects spanning diverse areas such as family literacy, family support, child development, compensatory education, curricular interventions, school health education, and child nutrition. He has published widely in evaluation and educational research journals, and is active in the American Evaluation Association. Dr. St. Pierre directed national evaluations of the Even Start Family Literacy Program and the Comprehensive Child Development Program. He received his Ph.D. in Education Research, Measurement and Evaluation at Boston College.

**Ms. Helen H. Taylor** is the Associate Commissioner of the Head Start Bureau, Administration on Children, Youth and Families. Prior to her appointment, Ms. Taylor was the Executive Director of the National Child Day Care Association in Washington, DC. She has served on numerous committees, including the Advisory Committee on Head Start Quality and Expansion, the Advisory Committee on Services for Families with Infants and Toddlers, National Academy of Sciences Head Start Roundtable, the National Academy of Early Childhood Education, and the Day Care Advisory Committee of the National Black Child Development Institute. In addition, Ms. Taylor is a former Chairperson of the Mayor's Advisory Committee on Early Childhood Development, a board member of the Washington Child Development Council and the Bright Beginnings Program for Homeless Children, and a past board member of the National Association for the Education of Young Children. Ms. Taylor received her M.S. in early childhood curriculum and instruction from the Catholic University of America.

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**Dr. Grover J. Whitehurst** is a Professor and Chair of the Psychology Department at the State University of New York at Stony Brook and serves on the National Research Council's Committee on Early Childhood Pedagogy as well as on the Department of Education's Family Literacy Synthesis Panel. His research focuses on determinants of literacy success for children from low-income backgrounds, the nature and consequences of early language delay, and educational uses of interactive technology. Dr. Whitehurst is currently directing a Head Start/University Partnership focusing on the determinants of later academic success of children attending Head Start. He received his Ph.D. in Child Psychology at the University of Illinois, Urbana-Champaign.

**Dr. Diane J. Willis** is a Professor of Psychology in the Department of Pediatrics at the University of Oklahoma Health Sciences Center and Director of Psychological Services and Training at the Child Study Center. Dr. Willis is also the Infant/Toddler Specialist with the American Indian Head Start Quality Improvement Center and a voting member of the Kiowa Tribe. In addition, Dr. Willis is President of the Oklahoma Association of Infant Mental Health, serves on the Board of Directors of both the Division of Psychotherapy and the Division of the Society of Clinical Psychology of the American Psychological Association (APA), and is a member of the Committee on Ethnic Minority Affairs of the APA. Dr. Willis received her Ph.D. in Experimental Psychology from the University of Oklahoma.

**Dr. Hirokazu Yoshikawa** is an Assistant Professor in the Psychology Department at New York University. Dr. Yoshikawa is currently a consultant for the Head Start Mental Health Research Consortium, as well as for the Head Start Training and Technical Assistance Network Workgroup on Mental Health. He was the Project Coordinator for the Task Force on Head Start and Mental Health of the American Orthopsychiatric Association, and co-authored *Lessons from the Field: Head Start Mental Health Strategies to Meet Changing Needs* in 1997. Dr. Yoshikawa received his Ph.D. in Clinical Psychology from New York University.

## BIOGRAPHIES OF THE ADVISORY COMMITTEE

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**Dr. Edward F. Zigler** is a Sterling Professor of Psychology, Head of the Psychology Section of the Child Study Center, and Director of the Bush Center in Child Development and Social Policy at Yale University. He is the author and co-author of numerous publications regarding normal child development, psychopathology, and mental retardation. Dr. Zigler served as Chief of the U.S. Children's Bureau and was the first Director of the Office of Child Development, now the Administration on Children, Youth and Families. He was also one of the original planners of Head Start. Dr. Zigler was a member of the National Academy of Sciences Head Start Roundtable, the Advisory Committee on Services for Families with Infants and Toddlers, and the Advisory Committee on Head Start Quality and Expansion. He received his Ph.D. from the University of Texas.

**Dr. Nicholas Zill** is a Vice President and Study Area Director at Westat, Inc. in Rockville, MD. Dr. Zill's expertise lies in the use of survey research and statistics to monitor the education, health, and well-being of children. Currently, Dr. Zill directs the Head Start Performance Measures Center, including the child assessment and classroom observation portions of the Family and Child Experiences Survey, and provides support for the work of the Head Start Quality Research Center Consortium. He also is an advisor to the Early Childhood Longitudinal Study-Kindergarten (ECLS-K) cohort, and is involved in the ECLS birth cohort study to be launched in 2000. He was a member of the data task force and Goal One Resource Group of the National Education Goals Panel and Chair of the mental health statistics subcommittee of the U.S. National Committee on Vital and Health Statistics. Dr. Zill received his Ph.D. in Psychology from Johns Hopkins University.

## Relevant Sections Related to the Advisory Committee on Head Start Research and Evaluation

### *Sec. 649 Research, Demonstrations, and Evaluation* (g) National Head Start Impact Research

Legislative Authority: Head Start Act, as amended.

U.S. Code Citation: 42 USC 9801 et seq.

ACF Regulations: 45 CFR 1301 et seq.

#### Legislative History:

*The Head Start Act is Title VI, Subtitle A, Chapter 8, Subchapter B of the Omnibus Budget Reconciliation Act of 1981, PL 97-35 (8/13/81). Minor amendments to this Act were made by the Technology-Related Assistance for Individuals With Disabilities Amendments of 1993, PL 103-218 (3/9/94). This Act was most recently reauthorized, through fiscal year 2003, by the Coats Human Services Amendments of 1998, PL 105-285 (10/27/98).*

Note: This compilation was prepared by HHS staff who have striven to ensure it is complete and accurate. However, this is not an official compilation and may not be completely free of error.

#### (g) NATIONAL HEAD START IMPACT RESEARCH

##### (1) EXPERT PANEL

(A) IN GENERAL The Secretary shall appoint an independent panel consisting of experts in program evaluation and research, education, and early childhood programs

(i) to review, and make recommendations on, the design and plan for the research (whether conducted as a single assessment or as a series of assessments) described in paragraph (2), within 1 year

## HEAD START AMENDMENTS OF 1998

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after the date of enactment of the Coats Human Services Reauthorization Act of 1998;

(ii) to maintain and advise the Secretary regarding the progress of the research; and

(iii) to comment, if the panel so desires, on the interim and final research reports submitted under paragraph (7).

(B) TRAVEL EXPENSES The members of the panel shall not receive compensation for the performance of services for the panel, but shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the panel. Notwithstanding section 1342 of title 31, United States Code, the Secretary may accept the voluntary and uncompensated services of members of the panel.

### (2) GENERAL AUTHORITY

After reviewing the recommendations of the expert panel, the Secretary shall make a grant to, or enter into a contract or cooperative agreement with an organization to conduct independent research that provides a national analysis of the impact of Head Start programs. The Secretary shall ensure that the organization shall have expertise in program evaluation, and research, education, and early childhood programs.

### (3) DESIGNS AND TECHNIQUES

The Secretary shall ensure that the research uses rigorous methodological designs and techniques (based on the recommendations of the expert panel), including longitudi-

nal designs, control groups, nationally recognized standardized measures, and random selection and assignment, as appropriate. The Secretary may provide that the research shall be conducted as a single comprehensive assessment or as a group of coordinated assessments designed to provide, when taken together, a national analysis of the impact of Head Start programs.

### (4) PROGRAMS

The Secretary shall ensure that the research focuses primarily on Head Start programs that operate in the 50 States, the Commonwealth of Puerto Rico, or the District of Columbia and that do not specifically target special populations.

### (5) ANALYSIS

The Secretary shall ensure that the organization conducting the research

(A)(i) determines if, overall, the Head Start programs have impacts consistent with their primary goal of increasing the social competence of children, by increasing the everyday effectiveness of the children in dealing with their present environments and future responsibilities, and increasing their school readiness;

(ii) considers whether the Head Start programs

(I) enhance the growth and development of children in cognitive, emotional, and physical health areas;

(II) strengthen families as the primary nurturers of their children; and

(III) ensure that children attain school readiness; and

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(iii) examines

(I) the impact of the Head Start programs on increasing access of children to such services as educational, health, and nutritional services, and linking children and families to needed community services; and

(II) how receipt of services described in subclause (I) enriches the lives of children and families participating in Head Start programs;

(B) examines the impact of Head Start programs on participants on the date the participants leave Head Start programs, at the end of kindergarten and at the end of first grade (whether in public or private school), by examining a variety of factors, including educational achievement, referrals for special education or remedial course work, and absenteeism;

(C) makes use of random selection from the population of all Head Start programs described in paragraph (4) in selecting programs for inclusion in the research; and

(D) includes comparisons of individuals who participate in Head Start programs with control groups (including comparison groups) composed of

(i) individuals who participate in other early childhood programs (such as public or private preschool programs and day care); and

(ii) individuals who do not participate in any other early childhood program.

### (6) CONSIDERATION OF SOURCES OF VARIATION

In designing the research, the Secretary shall, to the extent practicable, consider addressing possible sources of



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variation in impact of Head Start programs, including variations in impact related to such factors as

- (A) Head Start program operations;
- (B) Head Start program quality;
- (C) the length of time a child attends a Head Start program;
- (D) the age of the child on entering the Head Start program;
- (E) the type of organization (such as a local educational agency or a community action agency) providing services for the Head Start program;
- (F) the number of hours and days of program operation of the Head Start program (such as whether the program is a full-working-day, full calendar year program, a part-day program, or a part-year program); and
- (G) other characteristics and features of the Head Start program (such as geographic location, location in an urban or a rural service area, or participant characteristics), as appropriate.

### (7) REPORTS

(A) **SUBMISSION OF INTERIM REPORTS** The organization shall prepare and submit to the Secretary two interim reports on the research. The first interim report shall describe the design of the research, and the rationale for the design, including a description of how potential sources of variation in impact of Head Start programs have been considered in designing the research. The second interim report shall describe the status of the research and preliminary findings of the research, as appropriate.

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(B) SUBMISSION OF FINAL REPORT The organization shall prepare and submit to the Secretary a final report containing the findings of the research.

(C) TRANSMITTAL OF REPORTS TO CONGRESS

(i) IN GENERAL The Secretary shall transmit, to the committees described in clause (ii), the first interim report by September 30, 1999, the second interim report by September 30, 2001, and the final report by September 30, 2003.

(ii) COMMITTEES The committees referred to in clause (i) are the Committee on Education and the Workforce of the House of Representatives and the Committee on Labor and Human Resources of the Senate.

(8) DEFINITION

In this subsection, the term *impact*, used with respect to a Head Start program, means a difference in an outcome for a participant in the program that would not have occurred without the participation in the program.

In the course of its deliberations described above, the Committee sought to develop and consider a wide array of design options in coming up with its final recommendations. These options, included here to reflect the full range of discussion in the Committee, are sketched briefly below. The options were developed by individual members or groups of members in order to further the deliberations of the group, not to offer a single, comprehensive research design. As indicated in Chapter IV that outlines the research framework, some but not all elements of several of these options are included in the final plan.

### **Option I. Two Stage Randomized Design with Quasi-Experimental Component**

**How the Option Would Work.** In stage one, a nationally representative sample of sites would be chosen from the full list of all Head Start programs using a stratified and clustered random sampling technique. Basic information about all of these programs would be gathered. In stage two, a random subsample of the stage one sites would be chosen, and these sites would then randomly assign children to Head Start and control groups. By matching the sample and population profiles on measured variables, the national evaluator could then extrapolate impact findings of the subsample to the larger nationally representative sample.

Sites that do not participate in random assignment would become part of a quasi-experimental study. This quasi-experimental study would randomly select Head Start families to participate in the research, but all would be enrolled in Head Start. The control group would be a matched comparison group from the community who would not have received Head Start.

**How the Option Relates to the Recommendations.** This option is one example of a specific strategy that would be permitted under the design criteria identified by the Committee in its recommendations.

## **Option II. Random Assignment of Sites to Traditional Head Start and an Enhanced Head Start**

**How the Option Would Work.** Sites would be randomly selected from the total universe of Head Start sites. Half of the sites selected would be randomly assigned to the intervention and the other half to the control group. The control group would be Head Start as currently implemented. The intervention group would be the basic Head Start model with program options (e.g., an added focus on literacy services; two-year vs. one-year Head Start; full-day vs. part-day Head Start; various curriculum models). These program options would not be unusual efforts but programmatic approaches that reflect what is currently being carried out in strong Head Start programs and what could reasonably be expected to occur nationally once their effectiveness is demonstrated. There would be a sequence of these studies with randomization at the site level so that new information about various program options could continuously be used to reshape the core Head Start program.

**How the Option Relates to the Recommendations.** This option is not included in the basic impact design, although the concerns that led to the development of the option (primarily, concerns regarding contamination, the feasibility of random assignment, and obtaining clear estimates of the important sources of variation within Head Start) are extensively represented in the recommendations. Instead, the Committee has asked the Department to review elements of this option as part of the broader research agenda.

## **Option III. Purposive Sampling of Programs + Nationally Representative Quasi-Experimental Component**

**How the Option Would Work.** Part one includes a purposive sample of programs selected through a competitive process, or through a sampling frame that identifies programs according to specific strata. These programs would then engage in random assignment of children. The second part includes a study of a nationally representative sample of Head Start programs with a naturalistic comparison group in a sub-

set of randomly selected sites made up of children in the community who would qualify for Head Start but are not served by the program. The studies would be linked conceptually by using common measures and measurement points. Because of this conceptual link, researchers may be able to extrapolate from the purposive to the nationally representative sample.

**How the Option Relates to the Recommendations.** Like the first option above, this approach meets some the Committee's design criteria.

#### **Option IV. Part Start Randomized Design**

**How the Option Would Work.** Sites that have unserved children would be included in a pool of sites to be randomized. The randomly selected study sites would be given an expansion grant or other incentives to serve more children. Children would be randomly assigned to a full-program group or a partial-program group where they would receive only partial Head Start services (e.g., health and nutrition services; support of the family service coordinator; and child care subsidy). Comparisons would be made between these two groups of children.

**How the Option Relates to the Recommendations.** The Committee did not recommend this option in its full form, recommending that children be randomly assigned to Head Start and non-Head Start groups, rather than partial Head Start groups. However, the concern underlying this option, that staff and parents need an incentive to participate in the experiment, is reflected in the Committee's recommendation that the Department should consider what kinds of incentives can appropriately be offered to families.

#### **Option V. Consortium of Randomized Designs**

**How the Option Would Work.** Sites, in partnership with local researchers, would be competitively selected to participate as part of a consortium carrying out a set of coordinated randomized designs. A national research organization would provide technical assistance to the consortium and would conduct a cross-site analysis. If the number of sites was small, the purpose of this analysis would include gleaning

## DESIGN OPTIONS CONSIDERED BY THE ADVISORY COMMITTEE

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information from the experiences of the sites to inform a larger, more rigorous experimental design if one is needed in the future.

**How the Option Relates to the Recommendations.** The Committee did not recommend the initial form of this option, which involved a very small number of sites, out of concern that such a small group of sites would not be sufficiently diverse to yield a useful national answer. In this initial form, the Committee felt that the option was more suitable as part of a feasibility study than as an impact study itself. If the number of sites was large enough, this approach could potentially represent another acceptable approach under the Committee's recommended framework.

### **Option VI. Model Head Start with Random Assignment**

**How the Option Would Work.** Communities not currently served by Head Start would be identified and a model Head Start program would be built with all the attributes believed to be most effective. Eligible children would be randomly assigned to the new program. Because the program is new to the community, random assignment can be implemented with fewer concerns for denying services to some.

**How the Option Relates to the Recommendations.** This option is not part of the Committee's framework for the impact research, but it could be considered as part of the Department's overall research portfolio. In addition, the concerns that prompted the design of this option, particularly concerns regarding the alternative services available to control group children, are addressed by several of the Committee's recommendations.

### **Option VII. Highest Quality Head Start with Average Head Start as Comparison**

**How the Option Would Work.** Compare Head Start programs that provide an extraordinarily high quality Head Start experience to a random selection of average Head Start programs.

**How the Option Relates to the Recommendations.** This option is not part of the Committee's research design for impact, but it could be part of the Department's overall research portfolio. Whether through this design or not, the Committee urges the Department to continue a vigorous research agenda relating to Head Start quality.

### **Option VIII. National Early Childhood Data Collection Study**

**How the Option Would Work.** Build on one of the existing national studies, such as ECLS-B or ECLS-K, ensuring that there is a sufficient subsample of Head Start children to compare outcomes for Head Start children and comparable non-Head Start children.

**How the Option Relates to the Recommendations.** The Committee recommends that the impact research must include the fullest possible use of ongoing research, to supplement the random assignment sites and the possible quasi-experimental strategy. Therefore, this approach is a key part of the Committee's recommendations.

## **How Head Start Has Responded to the Changing Needs of Children and Families in Poverty**

Head Start is entering an historic period of reexamination, improvement in quality, and expansion of services. The size of the program, its comprehensive services, and diversity of the population it serves, and the fact that it is federally funded suggest a role for Head Start as a national laboratory for best practices in early childhood and family support services in low-income communities. Because Head Start needs to expand and renew itself in order to assume its role as a state-of-the-art technology, there is a concomitant and compelling need for a new, expanded, and formal role for Head Start research.

*Creating a 21st Century Head Start*, Advisory Committee on Head Start Quality and Expansion, 1993

The broad categories of the current Head Start research and evaluation efforts are summarized below, followed by a more detailed description of individual studies or activities contained within each area.

### **Quality: Conduct New Head Start Research Focusing on Quality and Other Policy Issues**

Head Start has made dramatic progress toward developing an outcome-oriented accountability system, the Program Performance Measures Initiative, which can be used, on an ongoing basis, to determine the quality and effectiveness of Head Start programs nationally.

#### *Descriptive Study of the Head Start Health Component*

This study was designed to provide a national snapshot of how local Head Start programs meet the medical, dental, nutritional, and mental health needs of the children and families they serve. Data were collected in 1994 on a national probability sample of 1,200 children and families in 81 centers across 40 Head Start programs to provide informa-



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tion on program procedures, community health risks, and health resources available to participating families. The final report is available at: [http://www2.acf.dhhs.gov/programs/hsb/CORE/dox/health\\_study.htm](http://www2.acf.dhhs.gov/programs/hsb/CORE/dox/health_study.htm).

### *Head Start Quality Research Center (QRC) Consortium*

The objective of the Consortium is to create an ongoing partnership among ACYF, Head Start grantees, and the academic research community to enhance quality program practices and program outcomes. A cooperative agreement in September 1995 established four Quality Research Centers at the University of North Carolina-Chapel Hill, High/Scope Educational Research Foundation in Ypsilanti, MI, Education Development Center, Inc. in Newton, MA, and Georgia State University in Atlanta. More information is available at: <http://www2.acf.dhhs.gov/programs/hsb/core/dox/hsresearch.html>.

### *Head Start Performance Measure Center (PMC)*

As part of the Head Start Quality Research Center Consortium, the PMC is responsible for the collection, analysis, reporting, and dissemination of data on Head Start Performance Measures. In the spring of 1997, the PMC took part in the pilot test of the first nationwide data collection assessing Head Start children and following them up in kindergarten, and assessing parents' experiences and the quality of Head Start classrooms, as part of the Family and Child Experiences Survey (FACES). (See below.)

### *Head Start Family and Child Experiences Survey (FACES)*

FACES is designed to collect longitudinal data on a nationally representative sample of 3,200 families with children enrolled in 40 Head Start programs, starting in Fall 1997. Its purposes are to provide descriptions of the characteristics, experiences, and outcomes for children and families served by Head Start and to observe the relationships among family and program characteristics and outcomes. The Head Start Performance Measures Second Progress Report, including findings from the Spring 1997 Pilot, is available at:

<http://www2.acf.dhhs.gov/programs/hsb/core/dox/faces.html>.

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More recent longitudinal findings of the study are available at: <http://www.acf.dhhs.gov/programs/hsreac/faces/>.

### **Longitudinal: Conduct Longitudinal Research on Children and Families Served in Head Start Programs**

Conduct longitudinal studies that seek to identify early and intermediate outcomes of a Head Start experience and that explore the interacting influences of preschool, family, and later schooling in mediating the long-term effects of child and family participation in Head Start. Build our partnership with ongoing longitudinal research, which will provide valuable information about the characteristics and needs of the Head Start population, both parents and children.

### *Evaluation of the Head Start/Public School Early Childhood Transition Demonstration*

The Transition Demonstration was designed to assist low-income students grades kindergarten through three and their families in obtaining supportive services including health, immunization, mental health, nutrition, parenting education, literacy, and social services, as well as supporting the active involvement of parents in the education of their children. The 31 demonstration grantees participated in a national evaluation under experimental design conditions to determine the effects of the demonstration on children, families, the Head Start program, the public school system, and the community. Data were collected annually from the time the children entered kindergarten until they completed third grade, using interviews and standard assessments with children, their parents, teachers, and principals. A report on program implementation is under review, and a final report on program impact is expected in the fall of 1999.

### *NICHD Study of Early Child Care: Early Child Care and Head Start Children*

ACYF and the National Institute of Child Health and Human Development are collaborating on a low-income substudy of this prospective, longitudinal natural history study of 1,200 children from

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10 sites across the U.S. ACYF's participation is designed to explore the concurrent, long-term, and cumulative influences of variations in early child care experiences on the cognitive, linguistic, social, emotional, and physical development of young children who grow up in poverty. A report is in preparation on children from birth through age three, and analyses are ongoing through early school age.

### **Infants and Toddlers: Conduct Intensive Evaluation of Services for Infants and Toddlers**

Provide opportunities for formative local evaluation, a national impact study, and innovative research partnerships to explore the issues of service delivery to children from birth to three and pregnant women.

#### *Evaluation of the Comprehensive Child Development Programs (CCDP)*

The purpose of this evaluation was to assess the effectiveness of CCDP by examining the impact of each program model on the cognitive, socioemotional, and physical development of a participating and control group of children (approximately 4,100) through the administration of standardized assessment batteries (at 24, 36, 48 and 60 months) and a series of annual interviews with the parents of the children in the study, including the use of observational instruments to measure the home environment and parent-child interactions. The final impact evaluation and process study reports have been completed and are available electronically via the Internet at:

<http://www2.acf.dhhs.gov/programs/hsb/core/dox/ccdp.html>.

#### *Early Head Start Research and Evaluation Project*

In order to evaluate the new Early Head Start program, serving children from birth through age three and pregnant women, this project has launched a study of approximately 3,000 families living in 17 diverse communities across the U.S. The project has four central purposes: (1) creating a system for continuous program improvement, (2) conducting a rigorous cross-site impact study, (3) encouraging a new generation of

research for understanding the role of program and contextual variations, and (4) creating the foundation for a series of longitudinal research studies. A descriptive report on program implementation will be available in 1999, with the first impact results due in 2001. The National Institute on Child Health and Human Development (NICHD), the Assistant Secretary for Planning and Evaluation (ASPE), and the Ford Foundation are collaborating on a related study of low-income fathers of infants and toddlers. For more information see <http://www2.acf.dhhs.gov/programs/hsb/core/dox/ehsover.html>.

### **Innovative Program Strategies: Conduct Studies of Head Start's Other Emerging Innovative Program Strategies**

Develop a long-term approach to research that draws upon emerging themes and developments in the broader early childhood field. In developing innovative demonstration programs, the demonstration and the evaluation should be planned simultaneously and interactively.

#### *Evaluation of the Head Start Family Child Care Demonstration*

This evaluation assessed the effectiveness of the 18 Head Start Family Child Care Homes (HSFCC) demonstration projects funded by ACYF in FY 1992 to serve families who were working, in school, or involved in training activities. The evaluation demonstrated that Head Start services provided through FCC homes compare favorably to services provided through centers, particularly in terms of their quality and effectiveness in promoting outcomes for children, parents, and families. Findings from the evaluation have been incorporated into plans for making FCC a regular Head Start program option. The final report is expected in 1999.

#### *Evaluation of the Family Service Center Demonstration*

The purpose of this national evaluation was to utilize Wave III demonstration projects to evaluate the effectiveness of the Head Start Family Service Center Demonstration Projects in their efforts to ameliorate the

interrelated problems of illiteracy, substance abuse, and unemployment which limit the capacity of many Head Start families to achieve self-sufficiency. Recently, local evaluation reports on Waves I-III were reviewed and analyzed for information to supplement the results of the national evaluation. The final report is under review.

### **Special Subpopulations: Conduct Studies of Special Subpopulations Separately or Embedded in Larger Studies**

Special studies should target Head Start subpopulations that may not be included in significant numbers in other research and evaluation studies (e.g., Hispanics, Native Americans, Asians, migrant farmworker families, children with disabilities, and geographically and socially isolated families).

#### *Descriptive Study of Bilingual/Multicultural Head Start Programs*

This study was designed to: (1) assess the number, geographic distribution, and sociodemographic characteristics of the Head Start-eligible population using U.S. Census data; (2) assess the number, geographic distribution, and sociodemographic characteristics of the children and families from bilingual and multicultural backgrounds currently being served by Head Start; and (3) identify the range of bilingual and multicultural services currently provided by Head Start programs. The draft final report is expected to be completed in the fall of 1999.

#### *Descriptive Study of the Characteristics of Families Served by the Migrant Head Start Program*

The purpose of this study was to: (1) characterize the currently served Migrant Head Start (MHS) client population, (2) provide an overall description of the MHS service delivery system and operational issues affecting both the nationwide service delivery system and local centers, and (3) estimate the universe of need for MHS services, as well as the proportion of MHS-eligible families currently served. The draft final report is expected to be completed in the fall of 1999.

### **Research Capacity: Develop and Enhance Capacity for Research on Head Start in Partnership with the Larger Child Development Community**

Take a visible leadership role in stimulating a comprehensive and coordinated set of research activities on the diverse populations served by Head Start in the child development community, using the model of reflective research partnerships of researchers, staff, families, and communities. Take responsibility for dissemination of critical research findings and best practices (in both program and research methodology) back to practitioners and other relevant consumers of such information.

#### *National Academy of Sciences Roundtable on Head Start Research*

The Board on Children and Families, within the National Academy of Sciences (NAS) was funded by ACYF to convene a roundtable of national experts, both researchers and practitioners, to review relevant early childhood research and provide input to the agency's ongoing effort to develop a long-term, revitalized Head Start research agenda. This two-year effort resulted in the publication of an NAS report entitled *Beyond the Blueprint: Directions for Research on Head Start's Families*. The report is available at:

[http://ericps.ed.uiuc.edu/nccic/research/nrc\\_bynd/nrc\\_bynd.html](http://ericps.ed.uiuc.edu/nccic/research/nrc_bynd/nrc_bynd.html).

#### *Head Start's National Research Conferences*

The fifth Head Start National Research Conference will be held in Washington, DC, on June 28-July 1, 2000. This bi-annual research conference regularly brings together both practitioners and leading child development researchers, including but not limited to researchers focusing on studying Head Start children, families, staff and programs. The next conference theme is *Developmental and Contextual Transitions of Children and Families: Implications for Research, Policy, and Practice*. Additional information is available on the Internet at: <http://www2.acf.dhhs.gov/programs/hsb>.

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### *Head Start/University Partnerships and Head Start Research Scholars Program*

The purpose of this category of discretionary funding is to support research conducted by universities on behalf of faculty or doctoral-level graduate students who form partnerships with Head Start or Early Head Start programs for the purposes of contributing new knowledge or testing research applications which will enhance the optimal development of young low-income children or improve services for these children and their families. Three areas are targeted as priorities for fiscal year 1999: (1) infant and toddler development in the cultural context; (2) theory-driven applications for the prevention, identification, and/or treatment of children's mental health disorders; and (3) field-initiated research focusing on child development (including health and mental health) or public policy issues with major implications for low-income children; cross-disciplinary research is invited. Additional information is available on the Internet at: <http://www2.acf.dhhs.gov/programs/hsb>.

### *Department of Education Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K)-Head Start Substudy*

The purpose of this Interagency Agreement is to join with the Department of Education in their study of children's early school experience. This is a longitudinal study of approximately 23,000 children from 1,000 schools nationwide, of which an estimated 3,000 will be former Head Start children. Starting in Fall 1998, the study will assess children as they enter kindergarten and continue through the fifth grade. Linkages are also being made with the Head Start Family and Child Experiences Survey (FACES). For further information, see <http://www.nces.ed.gov>.

### *Department of Education Early Childhood Longitudinal Study Birth Cohort (ECLS-B)-Head Start Substudy*

The Early Childhood Longitudinal Study-Birth Cohort 2000 (ECLS-B) will provide detailed information on children's development, health,

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early care, and education on a nationally representative sample of 12,000 children born in 2000 who will be followed longitudinally from birth through the end of first grade. ACYF currently is exploring the following: (1) development of questionnaires on parental decision-making related to selection of child care and/or early intervention programs; (2) direct observation of the quality of childcare and early education programs; and (3) supplementing already planned assessments in child development, family functioning, care provider competence, and community support, including direct observations of parent/care-giver-child interactions. For further information, see <http://www.nces.ed.gov>.

### *Head Start/Early Childhood Mental Health Initiative with NIMH*

Through an ongoing collaborative agreement with the National Institute of Mental Health (NIMH), ACYF seeks to generate new knowledge to improve the capacity of Head Start and related early childhood programs to deliver high quality, comprehensive, developmentally appropriate prevention and intervention services to support the mental health of low income young children, their families, and program staff. ACYF and NIMH awarded five research grants in September of 1997 as the core component of this collaborative mental health research initiative, including: the University of North Carolina at Chapel Hill, University of New Mexico, University of Oregon, Vanderbilt University, and Columbia University. The HSMHRC currently is conducting research in multiple Head Start communities that include a diversity of populations (Caucasian, African American, Hispanic American, and Native American) and settings (rural and urban). Within these diverse Head Start communities, the HSMHRC aims to: (1) identify current mental health related services; (2) determine prevalence, type, and severity of emotional, behavioral, and language problems; and (3) assess the impact of home-based, classroom-based, and/or skills training interventions on emotional, behavioral, and language problems. For further information, see <http://www2.acf.dhhs.gov/programs/hsb/core/dox/mhhs.html>.