

DOCUMENT RESUME

ED 423 975

PS 026 891

TITLE North Carolina's Smart Start Initiative: 1996-97 Annual Evaluation Report.

INSTITUTION North Carolina Univ., Chapel Hill. Frank Porter Graham Center.

PUB DATE 1997-04-00

NOTE 11p.; Report to the Department of Human Resources by the Smart Start Evaluation Team.

AVAILABLE FROM Frank Porter Graham Child Development Center, 105 Smith Level Road, CB #8180, Chapel Hill, NC 27599-8180; phone: 919-966-3871.

PUB TYPE Reports - Evaluative (142)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*At Risk Persons; Child Health; Day Care; \*Early Childhood Education; Economically Disadvantaged; Elementary School Students; Health Services; Partnerships in Education; Poverty Programs; Preschool Children; Program Evaluation; \*School Readiness; State Programs; Welfare Recipients; \*Welfare Services

IDENTIFIERS North Carolina; \*Smart Start NC

ABSTRACT

Smart Start is a multi-disciplinary, comprehensive, community-based initiative to serve North Carolina children under age 6 and their families to ensure that all children enter school healthy and prepared to succeed. To achieve this, local county partnerships have focused both their attention and their funds on three major areas of service implementation: child care, family programs, and health services. The evaluation data collection strategies have included measuring changes in child care quality, family functioning, and children's receipt of health services, as well as the long-term outcome of school success. The most notable recent finding is the significantly higher quality of child care as observed in randomly selected preschool classrooms in the pioneer Smart Start counties in 1996-97 compared to 1994-95. This report details the four main goals of Smart Start: (1) children are healthy and prepared to succeed in school; (2) families effectively fulfill their role as primary providers, nurturers, and teachers; (3) high quality, affordable services for children will be available; and (4) North Carolina counties value children and families by providing options and resources, and encouraging collaboration. Related to each goal, the report presents the main data collection strategies being used to evaluate progress towards the goal, followed by brief summaries of recent results and key findings from earlier reports. (JPB)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

PS

U.S. DEPARTMENT OF EDUCATION  
 Office of Educational Research and Improvement  
 EDUCATIONAL RESOURCES INFORMATION  
 CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

---

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 423 975

**NORTH CAROLINA'S SMART START INITIATIVE:  
 1996-97 ANNUAL EVALUATION REPORT**

**Report to the Department of Human Resources  
 by the Smart Start Evaluation Team,  
 University of North Carolina at Chapel Hill**

April, 1997

PERMISSION TO REPRODUCE AND  
 DISSEMINATE THIS MATERIAL HAS  
 BEEN GRANTED BY

Donna  
Bryant

TO THE EDUCATIONAL RESOURCES  
 INFORMATION CENTER (ERIC)

1

026891

We want to thank all child care directors and providers, service agency staff, and other Smart Start participants who have helped with various aspects of the evaluation.



**List of Smart Start Evaluation Team Research Investigators**

**University of North Carolina at Chapel Hill**

**Frank Porter Graham Child Development Center**

Donna Bryant, Ph.D., Principal Investigator  
Kelly Maxwell, Ph.D., Project Director  
Kathleen Bernier, Ph.D.  
Peg Burchinal, Ph.D.  
Virginia Buysse, Ph.D.  
Ellen Peisner-Feinberg, Ph.D.  
Betsy Lowman, Ph.D.

**Maternal and Child Health Department**  
**School of Public Health**

Jonathan Kotch, M.D.

**Jordan Institute for Families**  
**School of Social Work**

Dennis Orthner, Ph.D.  
Peter Neenan, Ph.D.

**School of Education**

George Noblit, Ph.D.

70 copies of this public document were printed at a cost of \$70.04, or \$1.00 per copy.

## NORTH CAROLINA'S SMART START INITIATIVE: 1996-97 ANNUAL EVALUATION REPORT

Smart Start is a multi-disciplinary, comprehensive, community-based initiative to serve North Carolina children under age 6 and their families. The major long-range goal of Smart Start is to ensure that all children enter school healthy and prepared to succeed. To achieve this goal, local county partnerships have focused both their attention and their funds on three major areas of service implementation: child care, family programs, and health services. The evaluation team considers changes in these areas to be intermediate-term outcomes, that is, changes that should lead to the longer-range goal of increased preparedness for school. Therefore, the evaluation data collection strategies have included measuring changes in child care quality, family functioning, and children's receipt of health services, as well as the long-term outcome of school success.

**The most notable recent finding is the significantly higher quality of child care as observed in randomly selected preschool classrooms in the pioneer Smart Start counties in 1996-97 compared to 1994-95.** These results are further described on pages 4-5 and in a separate, detailed report by the evaluation team, *Effects of Smart Start on Preschool Child Care Quality*. We highlight the child care results here because they are an indication that one of Smart Start's main strategies for improving children's preparedness for school -- enhancing the quality of their child care environment -- seems to be having a positive effect.

This report is organized by the four main goals of Smart Start. Related to each goal, the report presents the main data collection strategies being used to evaluate progress towards the goal followed by brief summaries of recent results and key findings from earlier reports. Many of these findings are in separate and more detailed reports, listed at the end of this document.

### **Goal 1. Children are healthy and prepared to succeed in school.**

North Carolina public schools obtain health and readiness data on entering kindergartners in a variety of different ways, with no uniform database available to monitor children's progress across counties. Thus, the evaluation team has developed a standard way of collecting these data in selected counties. Randomly selected teachers from all 44 Smart Start counties rated 3900 randomly sampled children on the Kindergarten Teacher Checklist in 1995 to measure children's cognitive, language, motor, and social skills. Data collectors coded immunization, screening, and other health data from the Kindergarten Health Assessment forms of 9700 randomly selected kindergartners in 20 Smart Start counties, also in 1995. These data from kindergarten teachers and children's health records serve as baseline data. Similar data will be gathered in the fall of 1997 to determine whether kindergartners' skills and health status have changed over the past 2 years. Several findings about health and preparedness for school are listed below.

- In general, NC children enter kindergarten with a wide range of skills, however 18% of kindergartners in Smart Start counties were judged by their teachers as not ready to participate successfully in school.
- Kindergartners who had attended child care had more skills than those who did not attend child care, which is consistent with other research demonstrating that child care can promote cognitive, language, and social skills.
- Children from poor families had fewer skills than those from non-poor families, supporting long-standing research that poverty is a component of school failure. These findings also support Smart Start's focus on getting more children from poor families into child care and improving the overall quality of child care.
- Kindergartners from partnerships spending *more* money on child care had significantly *more* skills than kindergartners from partnerships spending less money on child care. Because these results are correlational (not causal), we must cautiously note that counties with more children who are better prepared for school may also be counties that have a history of more funding for early childhood programs.
- Kindergartners from poor families in counties that received *more* of their full-funding allocation were rated as having significantly *more* skills than kindergartners from poor families in counties that received proportionately less of their assessed full-funding allocation. The counties that received less of their full-funding allocation tended to be more urban so this finding likely indicates that poor children in urban areas are generally doing less well than poor children in rural areas.
- Most kindergartners were fully immunized once they entered kindergarten, but only 53.3% had been immunized on time. Many children apparently are given their last immunizations right before school starts, but these children should have received the immunizations earlier.
- Of entering kindergartners, 2% failed a hearing test, 7% failed a vision test, and 25% had at least one identified health problem. These are the kinds of health needs that Smart Start programs are attempting to find and treat earlier than kindergarten entry. The evaluation team will monitor these types of health needs over time to note possible changes.
- Speech problems seem the most likely developmental problem to receive treatment in the preschool years, with over 40% of entering kindergartners who were noted to have a speech problem having already been referred to a DEC. Child care centers, health providers, and parents are more likely to perceive the need for speech intervention compared to other problems, so more children with speech difficulties have received treatment before they enter school. Even so, almost 60% of children with speech problems had not yet been referred.

The evaluation team will again assess these areas of kindergarten health and skills in the fall of 1997, using the 1995 data as a comparison point. Entering kindergartners and their families in

the 12 pioneer partnerships will have been “exposed” to 4 years of Smart Start efforts and more counties have entered into Smart Start since the first round of data collection. This will provide more opportunities for comparisons to better understand possible Smart Start effects on children’s health and preparedness for school.

**Goal 2. Families effectively fulfill their role as primary providers, nurturers and teachers.**

To gather information about families served by Smart Start, the evaluators interviewed 356 families from the pioneer partnerships who had received some type of child care, health, or family support service. In each county, the sample was selected in proportion to the county’s distribution of Smart Start funds in the three main areas. For example, in a partnership that spent most of their funds on child care, most of the families interviewed were randomly selected from child care lists. Questions on the interview covered child care, health, and community services. Some questions about families’ participation in educationally important activities were previously asked in a national sample of families in the 1993 National Household Education Survey and other questions about family strengths were previously asked of 700 other NC families by the Family Council of North Carolina. Smart Start families can be compared to the other samples in these domains. The findings from these interviews will be detailed in a report to be completed in June, 1997, but some important facts are noted below.

- Smart Start serves a wide range of North Carolina families, from the unemployed to the working poor to the well-off. Sixty-three percent (63%) of low-income and 90% of middle-income Smart Start families in our sample are employed.
- Families participating in Smart Start engage in educationally important activities with their child (such as reading, playing number games, telling stories, singing together) as often, if not more often, than a national sample of parents of preschoolers. The similarity between the Smart Start and national sample is even more striking because of the larger proportion of low-income parents included in the Smart Start sample.
- A high percentage of Smart Start families (79%) report that they have the strength to cope with the pressures on them, although this percentage is slightly lower than found in a random sample of NC families (84%).
- Participation in religious activities was high among Smart Start families (60%) and for many families was the only involvement in community groups reported; 25% of Smart Start families were not involved in any community group.
- Parents learn about services for their children and themselves through word of mouth, friends and relatives, and the phone book. An activity frequently funded by Smart Start -- creating a directory of community services -- was ranked fourth. These findings indicate that there is a continuing need for distribution of information about child and family services to a wide variety of agencies and people; not just to professionals or through service agencies.

Especially given the high percentage of families involved with church or religious organizations, providing information through these groups is a way to reach a large number of people.

- Almost one-fourth of families interviewed said they needed parenting education programs.
- Low-income families were more than twice as likely to report one or more barriers to obtaining needed services, including cost of services, inconvenient hours, lack of child care, and negative attitudes of the staff at service agencies.

Smart Start is funding a wide variety of family-focused programs. Most of them appear to be desired by a large number of families, and many are serving the need for information, education, and training as expressed by many parents. It should be noted that families know programs by names, not funding sources. Many families whom we knew were receiving Smart Start-funded services did not know that they were a part of Smart Start. Therefore, further evaluation of family progress will be difficult to link directly to Smart Start participation if we must rely on only parental self-report. The evaluation team is currently working with a few partnerships to conduct longitudinal studies of small groups of children and families who are participating in various Smart Start services. This strategy may provide better ways of evaluating families over the course of their participation in Smart Start programs.

### **Goal 3. High quality, affordable services for children and families will be available.**

Data on the services and quality of child care provided in 180 child care centers across the pioneer partnership were gathered through preschool classroom observations and director interviews in 1994-95 and again in 187 centers in 1996-97. The Early Childhood Environment Rating Scale (ECERS) was used as the rating of developmental appropriateness in randomly selected preschool classrooms in these centers. Highlights of these very recent findings are presented below. (For more detail, see *Effects of Smart Start on Preschool Child Care Quality*.)

- In pioneer Smart Start partnerships, the quality of child care was significantly greater in 1996 than in 1994, both as measured by the percentage of AA centers and by observations of quality in preschool classrooms. From 1994 to 1996 the percentage of classes rated as “good” or above on the ECERS increased from 14% to 25%.
- These quality changes appear to be related to Smart Start participation as evidenced by four specific findings. (1) The proportion of funds a partnership spent on child care quality improvements significantly predicted quality, with more funds spent on child care quality improvement positively related to ECERS quality. (2) The percentage of full-funding received by a partnership affected the influence of proportion of funds spent on child care. Proportion spent on child care was not as strongly associated with quality in counties that received a low percentage of their full-funding amount as it was in counties that received a high percentage of their full-funding amount. (3) The number of child care quality

improvement activities that an individual center participated in was significantly related to their ECERS quality score -- more activities were associated with better quality. (4) The average quality of the 91 centers that were visited in both 1994 and 1996 increased significantly, including an increase in the proportion of centers licensed at the higher AA level. These findings all support the conclusion that improved child care quality is associated with Smart Start participation.

- The percentage of AA-licensed child care centers (a higher level of quality care than the A license) is increasing in many counties in NC, but it is increasing at a faster rate in Smart Start counties than in non-Smart Start counties.
- The quality of care in centers that included children with disabilities was higher than that found in programs enrolling only nondisabled children, suggesting that high quality child care is available for children with disabilities and their families.
- In 1994, 62% of the child care teachers in our sample from the pioneer counties had a NC Child Care Credential or an Associate or BA degree. In the 1996 sample, 74% had a NC Child Care Credential or higher degree. In the 1994 sample, teacher turnover was 32% compared to 10% in public schools and the average wage for a lead teacher was \$5.77/hour. The evaluation team is currently analyzing the recently gathered child care data to determine if Smart Start efforts have improved these and other variables related to the quality of care.
- The median monthly child care fee for parents of preschoolers in 1994-95 was \$240, ranging from \$138 to \$550 across the first Smart Start pioneer counties. In 1996, the median fee was \$260, with a range from \$120 to \$622. More than half of all families interviewed expressed a need for financial assistance for child care and most were receiving it. Half of low-income families spent more than 10% of their income on child care.

In summary, the most significant finding in the area of child care has been the overall increase in preschool classroom quality from 1994 to 1996. The difference is significant at a level that scientists term "moderate," that is, a change that is meaningful and worthwhile. Finding a difference of this magnitude is particularly notable since, in Smart Start's first years, it has been a diverse set of "treatments" implemented in a wide variety of settings with a varying degree of intensity. However, the mean level of quality even in 1996 was below that which one would hope to achieve eventually, so there is still room for improvement. The evaluation team is currently conducting observations in 100 child care programs in the round 3 and 4 partnerships. These will serve as baseline child care quality data in counties that have just begun or are still planning their Smart Start efforts.



**Goal 4. NC counties value children and families by providing options and resources, and encouraging collaboration.**

Data about collaboration and community involvement within partnerships were gathered through qualitative studies using interviews, focus groups, and document reviews with various partnership members. Information about partnerships' inclusion of children with disabilities was gathered by reviewing documents. Because the process of implementing Smart Start is so unique and has been noted at many national meetings as a model of a new approach to community initiatives, the evaluation team has each year included a qualitative research component to investigate the process of board and agency collaboration. Some of the key findings are summarized below.

- All pioneer partnerships included children with disabilities and their families in their plans and allocated up to 10% of their funds for programs serving children with disabilities and their families. Inclusion is a strongly supported belief among partnership board members and service providers. (For more details, see *Effects of Smart Start on Young Children with Disabilities and their Families.*)
- Across partnerships, agencies have increased their collaboration and cooperation in developing needed resources for young children and their families as noted by key participants. Many participants feel that this collaboration is one of the most striking successes of the initiative. (For more details, see *Keeping the Vision in Front of You: Results from Smart Start Key Participant Interviews.*)
- Local partnership board members fear that politicization of Smart Start at the state level has created a defensive mentality among partnership boards that somewhat stifles innovation. Local board members believe that over the years there has been a retraction of local autonomy and increased pressure for more standardization and regulation of local partnerships. (For more details, see *Reinventing Government? Perspectives on the Smart Start Implementation Process.*)
- Parent and business involvement in the local partnerships is essential for partnerships to fully involve their communities, but this is a continuing challenge for partnerships. Executive directors have assumed the major responsibility for supporting parent and business involvement. Partnerships that have a higher parent and business involvement rely on multiple strategies, including recruiting key community leaders, offering a wide range of roles to participants, and supporting participation. (For more details, see *Bringing the Community Into the Process: Issues and Promising Practices for Involving Parents and Business in Local Smart Start Partnerships.*)

Through interviews and focus groups, the evaluation team has noted increased collaboration among individuals and agencies involved with young children and families. The coming together has not always been smooth and easy, but the long-term goal of improved child and family well-being has encouraged many already-motivated individuals in 44 counties in North

Carolina to share their ideas, information, and energies towards creating more and better programs in their own community.

### **Future Work**

The findings summarized in this report are measurable, interim effects of Smart Start, that is, they are steps along the way to improved health and preparedness of children entering kindergarten. This ultimate goal is one that may be accomplished if the Smart Start efforts achieve their intermediate goals -- better child care, improved well-being of families, and greater health resources for children. We noted in this report that child care quality is indeed improved as a result of Smart Start. Partnerships are spending 48% of their 1996-97 funds on child care, so we will continue to measure child care quality. We will also continue to measure family well-being and health care utilization, and in 1997-98 will undertake another major data collection effort on the health and school success outcomes for children.

*For more detailed information about the Smart Start Evaluation,  
please contact Dr. Donna Bryant at (919) 966-4295.*

## APPENDIX: REPORTS FROM THE UNC SMART START EVALUATION TEAM

### **Emerging Themes and Lessons Learned: The First Year of Smart Start (August, 1994)**

This report describes the first-year planning process of the pioneer partnerships and makes some recommendations for improving the process.

### **Smart Start Evaluation Plan (September, 1994)**

This report describes our comprehensive evaluation plan, designed to capture the breadth of programs implemented across the Smart Start partnerships and the extent of possible changes that might result from Smart Start efforts.

### **Keeping the Vision in Front of You: Results from Smart Start Key Participant Interviews (May, 1995)**

This report documents the process as pioneer partnerships completed their planning year and moved into implementation.

### **North Carolina's Smart Start Initiative: 1994-95 Annual Evaluation Report (June, 1995)**

This report summarizes the evaluation findings to date from both quantitative and qualitative data sources.

### **Reinventing Government? Perspectives on the Smart Start Implementation Process (November, 1995)**

This report documents pioneer partnership members' perspectives on 2 major process goals of Smart Start: non-bureaucratic decision making and broad-based participation.

### **Center-based Child Care in the Pioneer Smart Start Partnerships of North Carolina (May, 1996)**

This brief report summarizes the key findings from the 1994-95 data on child care quality.

### **Effects of Smart Start on Young Children with Disabilities and their Families (December, 1996)**

This report summarizes a study of the impact of Smart Start on children with disabilities.

### **Bringing the Community into the Process: Issues and Promising Practices for Involving Parents and Business in Local Smart Start Partnerships (April, 1997)**

This report describes findings from interviews and case studies about the involvement of parents and business leaders in the Smart Start decision-making process.

### **The Effects of Smart Start on the Quality of Child Care (April, 1997)**

This report presents the results of a 2-year study of the quality of child care in the 12 pioneer partnerships.



U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement (OERI)  
Educational Resources Information Center (ERIC)



## NOTICE

### REPRODUCTION BASIS



This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.



This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").