

# From Implementation to Impact



*An Evaluation of the South Carolina  
First Steps to School Readiness Program  
2006*



*Conducted by*  
High/Scope Educational Research Foundation



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## **About The High/Scope Educational Research Foundation**

The High/Scope Educational Research Foundation is an independent, nonprofit 501(c) 3 organization with headquarters in Ypsilanti, Michigan. Founded in 1970, High/Scope's mission is to lift lives through education so everyone can succeed in life and contribute to society. Its vision is widespread participatory education in which students and teachers are partners in shaping the learning experience. To this end, it engages in evaluative research, development of curriculum, training, and assessment materials, and dissemination through educational services and publishing. These activities target teachers and service workers, primarily in early childhood programs and also in elementary schools and out-of-school youth programs. It also disseminates research findings to those who influence children's lives, such as teachers, service workers, parents, administrators, policymakers, academics, and researchers. The Foundation also has initiatives in early childhood literacy and elementary education through movement.



The law creating First Steps not only provided for the establishment and enhancement of services directed toward young children and their families, it also established an evaluation process for monitoring and improving the effectiveness of the First Steps program. Under the law, an evaluation of the program effectiveness of First Steps is to be conducted by an external evaluator, and an evaluation report is to be provided to the South Carolina General Assembly every three years. The legislation also stipulated that the external evaluation be supervised by a three-person committee with two committee members to be appointed by the General Assembly and one by the First Steps Board of Trustees. The members of the three-person committee have worked with the First Steps Board of Trustees and the Office of South Carolina First Steps to oversee the external evaluation presented herein.

The First Steps Board of Trustees contracted with the High/Scope Educational Research Foundation to conduct this external evaluation. The High/Scope Educational Research Foundation is a nonprofit, nonpartisan research organization in Ypsilanti, Michigan that focuses on research in the areas of early childhood development and education. The three-person committee has worked closely with High/Scope researchers to ensure that the evaluation is impartial, comprehensive and instructive, and we endorse this report as possessing each of these qualities. We appreciate the cooperation of the many groups that have contributed to this evaluation. We have enjoyed excellent working relationships with High/Scope, the First Steps Board of Trustees, the Office of South Carolina First Steps and with the county staff, board members and service providers.

This evaluation focuses on the second three years of First Steps, a period during which the initiative began its shift from start-up and initial implementation toward a more focused concentration upon child outcomes. The report details the tremendous successes of the First Steps initiative to date, and outlines important challenges still to be addressed. We hope that all involved in this initiative to improve the school readiness of our children will find the report a useful blueprint for action.

Members of the Three-Person Committee:

Susan Shi  
Patty Kay  
Dexter Cook



# Table of Contents

Tables.....	iii
Figures.....	vi
Acknowledgements.....	vii
Preface.....	ix
Executive Summary.....	xiii
Introduction.....	1
The Challenge of Evaluating First Steps' Impact.....	3
Trends in Evaluating State-Funded Preschool.....	4
Overview of the Evaluation.....	7
First Steps' Early Childhood Care and Education Investments.....	9
What is School Readiness?.....	16
Physical Well-Being and Motor Development.....	17
Social and Emotional Development.....	17
Approaches Toward Learning.....	17
Language Development and Communication.....	18
Cognition and General Knowledge.....	18
Early Education.....	21
Introduction.....	21
Evaluation Questions.....	22
Methods.....	23
Data Problems.....	25
Sample.....	27
Findings.....	34
Teacher Qualifications.....	34
Curriculum Implementation and Classroom Quality.....	35
Short-Term Outcomes for Children in 4K.....	38
Long-Term Outcomes for First Steps Children.....	40
Comparison of Child Outcomes Between Full-Day, Half-Day and No-4K Participation.....	45
Summary.....	54
Quality Enhancement Programs and Child Care Expansion.....	56
Introduction.....	56
Evaluation Questions.....	58
Methods.....	60
Data Problems.....	61
Sample.....	62
Findings.....	62
Characteristics of First Steps-Funded Child Care Providers.....	62
Provider Participation in Quality-Enhancement Programs.....	64
Relationship Between Program Quality and Participation in Quality Enhancement Programs.....	68
Characteristics of Child Care Expansion Program Participants.....	74
Summary.....	76

Parenting and Family Strengthening.....	78
Introduction.....	78
Evaluation Questions .....	79
Methods.....	80
Data Problems .....	81
Findings.....	83
Long-Term Outcomes for the Children of Parenting and Family Strengthening	
Program Participants.....	84
Lexington County School District 3 Case Study .....	93
Summary.....	99
The Added Value of First Steps.....	101
Introduction.....	101
Evaluation Questions .....	102
Methods.....	103
Data Problems .....	103
Sample.....	103
Findings.....	104
Greatest Value or Asset of First Steps .....	104
Increased Number of Children Ready for School.....	106
Strengthening of Parenting Skills and Increased Parental Involvement in Schools.	
.....	107
Increased Access to Quality Child Care and 4K.....	108
Collaboration Between Local Agencies and Organizations .....	108
Communication at the Local and State Levels .....	109
Needs Assessments, Budgets, and Funding.....	113
First Steps Rules and Regulations.....	114
Comparisons to Non-First Steps Government Departments and Programs.....	116
Summary.....	117
Conclusions and Recommendations .....	119
Introduction.....	119
Early Education.....	119
Child Care .....	120
Parenting and Family Strengthening.....	121
The Added Value of First Steps.....	122
Recommendations.....	123
Program Investments .....	124
Data Management.....	126
Bureaucracy and Collaboration.....	127
First Steps' Self-Improvement Strategies .....	128
References.....	131
Appendix A: The South Carolina Readiness Assessment .....	137
Appendix B: Countdown to Kindergarten .....	140
Appendix C: Publicly Funded Prekindergarten in South Carolina: Coordinating	
Resources for Greater Impact .....	142

# Tables

Table 1. Total Expenses by Funding Source and Fiscal Year .....	11
Table 2. Total Expenses by Category and Fiscal Year .....	12
Table 3. Cohort Sample Sizes .....	28
Table 4. Child Characteristics by Program Type for All Cohorts .....	29
Table 5. Child Characteristics by Program Type and First Steps Funding Status .....	31
Table 6. Characteristics by Program Type for First Steps-Funded Children.....	33
Table 7. 2004–2005 4K Teacher Characteristics.....	34
Table 8. High/Scope Program Quality Assessment (PQA) Scores.....	36
Table 9. Creative Curriculum Implementation Checklist Scores .....	36
Table 10. Early Childhood Environment Rating Scale (ECERS) Scores for First Steps 4K and Non-First Steps 4K.....	38
Table 11. Fall to Spring Gains for 4K Children in the NIEER Sample.....	40
Table 12. Odds Ratio of Kindergarten Retention by Program Type (Cohort 3: 2003–2004) .....	41
Table 13. Odds Ratio of Special Needs Placement in First Grade by Program Type (Cohort 3: 2003-2004) .....	42
Table 14. Kindergarten SCRA Scores by Program Type and Funding Source for Cohort 3 (2003–2004) and Cohort 4 (2004–2005) .....	44
Table 15. Odds Ratio of Kindergarten Retention for First Steps-Funded Children, Half-Day vs. Full-Day Cohort 3 (2003-2004).....	45
Table 16. Odds Ratio of Special Education Placement in First Grade for First Steps-Funded Children, Half-Day vs. Full-Day Cohort 3 (2003–2004).....	46
Table 17. Kindergarten SCRA Factor Scores for First Steps-Funded Children Half- Day vs. Full-Day Cohort 3 (2003–2004).....	46
Table 18. Odds Ratio of Grade Retention: Half-day, Full-day, and No 4K, by .....	49
Grade and Cohort.....	49

Table 19. Odds Ratio of Special Education Placement: Half-day, Full-day, and No 4K, by Grade and Cohort.....	49
Table 20. Kindergarten SCRA Score by Factor, Study Group, Ethnicity, and Cohort ...	51
Table 21. Grade One SCRA Score by Factor, Study Group, and Cohort.....	52
Table 22. Grade Three PACT Score by Study Group and Ethnicity (for Cohort 1).....	54
Table 23. Descriptive Characteristics of Child Care Centers .....	63
Table 24. Descriptive Characteristics of Family/Group Care Providers .....	64
Table 25. Child Care Centers Quality Enhancement Participation.....	66
Table 26. Family/Group Care Quality Enhancement Participation .....	67
Table 27. Early Childhood Environment Rating Scale (ECERS) Scores for Child Care Centers By Participation in First Steps Training Opportunities .....	69
Table 28. Early Childhood Environment Rating Scale (ECERS) Scores for Child Care Centers By Participation in First Steps On-Site Consultation Opportunities .....	70
Table 29. Richland County Infant-Toddler Environmental Rating Scale (ITERS) Scores For Child Care Centers .....	72
Table 30. Correlations Between Child Care Center Teachers' Education/Training and Self-Reported Quality Ratings.....	74
Table 31. Child Care Expansion Participants Characteristics by First Steps Funding Status (2003–2004).....	75
Table 32. Age Eligibility of Parenting and Family Strengthening Children .....	82
Table 33. Child Characteristics by Parenting and Family Strengthening Program Type Cohorts 3 and 4 .....	85
Table 34. Odds Ratio of Kindergarten Retention: FS Parenting vs. No-FS Parenting Programs (Cohort 3) .....	88
Table 35. Odds Ratio of Special Need Placement in First Grade: FS Parenting vs. No-FS Parenting Programs (Cohort 3).....	89
Table 36. SCRA Scores by Parenting Program Type for Cohort 3 (2003–2004) and Cohort 4 (2004–2005).....	91

Table 37. Child Characteristics by Type for Lexington County School District 3 Case Study .....	94
Table 38. Lexington County School District 3 Odds Ratio of Grade Retention: First Steps Parenting Program Participants vs. Non-Participants by Grade .....	95
Table 39. Odds Ratio of Special Education Placement: First Steps Parenting Program Participants vs. Non-Participants by Grade .....	95
Table 40. Lexington 3 SCRA Factor Scores: First Steps Parenting Program Participants vs. Non-Participants .....	97
Table 41. Grade Three PACT Scores: First Step Parenting Program Participants vs. Non-Participants by Grade .....	98
Table 42. Lexington 3 FS Parenting Program: Mean Scores Pre- vs. Post-Tests.....	99
Table 43. EDs' Comparison of First Steps to Other Government Departments and Programs .....	116
Table 44. Non-First Steps Respondents' Views of First Steps' Influence on Department Activities .....	117
Table 45. Non-First Steps Respondents' Views on Collaboration and Compatibility ...	117
Table 46. Factor Loadings for English Language Arts Items .....	137
Table 47. Factor Loadings for Mathematics Items .....	138
Table 48. Factor Loadings for Personal and Social Development Items.....	139

# Figures

Figure 1. Combined Total Expenses by Category for Fiscal Years 2002–2005..... 13

# Acknowledgements

We would like to acknowledge the contributions of the following individuals who were particularly helpful in the completion of this report:

*In the Office of First Steps:* Susan DeVenny, Dan Wuori, Russell Brown

*Members of the External Evaluation Committee:* Susan Shi, Dexter Cook, Patricia Kay

*First Steps State Board Member:* Walter Miller

*South Carolina Office of Research and Statistics:* Baron Holmes, Diana Tester, Mary Payson, Cerissa Fulmer, Charles Bradberry, David Patterson

*University of South Carolina:* Dr. Nancy Freeman

*Colleagues at the High/Scope Educational Research Foundation:* Mary Delcamp, Beth Hardin, Brenda Henry, Kathleen Herrold, Gloria Leach, Shannon Lockhart, Carol Markley, Beth Marshall, Ann Schimke, Beth Scholz

We'd also like to thank the following groups of people that worked with us as we gathered and analyzed all of the information included in this report:

*Members of the First Steps Family:* Board of Trustees Evaluation Committee members, County Executive Directors, County Partnership Board Chairpersons, and the entire membership of the state-level Board of Trustees

*South Carolina Department of Education*

*South Carolina Department of Health and Human Services*

*South Carolina Department of Social Services*

*South Carolina Department of Health and Environmental Control*

Thank you,

Kimberly Browning

Marijata Daniel-Echols

Zongping Xiang



## Preface

Shortly after being elected governor of South Carolina in November 1998, Governor Jim Hodges began talking with officials from North Carolina about Smart Start, North Carolina's early childhood education and health program. Governor Hodges was eager to launch such a program in South Carolina where one in seven children arrived in first grade unprepared for school. Less than two months into Hodges' administration, South Carolina lawmakers introduced legislation for what would eventually become the state's First Steps to School Readiness Program. First Steps would be

a comprehensive, results-oriented initiative for improving early childhood development by providing, through county partnerships, public and private funds and support for high-quality early childhood development and education services for children by providing support for their families' efforts toward enabling their children to reach school ready to learn (Section 59-152-010 South Carolina Enabling Legislation, 1999).

After debate over funding levels and governance structure, the state House and Senate agreed on a compromise bill that Hodges signed into law on June 28, 1999. The new program was initially funded at \$20 million the first year. The purpose of First Steps as outlined in Section 59-152-20 of the legislation is to

develop, promote, and assist efforts of agencies, private providers, and public and private organizations and entities, at the state level and the community level to collaborate and cooperate in order to focus and intensify services, assure the most efficient use of all available resources, and eliminate duplication of efforts to serve the needs of young children and their families.

The goals of First Steps were identified in section 59-152-30 and are to

- Provide parents with access to the support they might seek and want to strengthen their families and to promote the optimal development of their preschool children

- Increase comprehensive services so children have reduced risk for major physical, developmental, and learning problems
- Promote high-quality preschool programs that provide a healthy environment that will promote normal growth and development
- Provide services so all children receive the protection, nutrition, and health care needed to thrive in the early years of life so children arrive at school ready to learn
- Mobilize communities to focus efforts on providing enhanced services to support families and their young children so as to enable every child to reach school healthy and ready to learn

The law allowed both Hodges and legislators to appoint members to the inaugural First Steps State Board of Trustees. The Board of Trustees membership consists of the Governor, the Superintendent of Education, the Chairman of the Senate Education Committee (or designee), the Chairman of the House Education and Public Works Committee (or designee), as well as 18 voting members appointed by the Governor, President Pro Tempore of the Senate and the Speaker of the House and twelve nonvoting members who represent state agencies and organizations. Included among the individuals appointed by the Governor, President Pro Tempore of the Senate, and the Speaker of the House are parents of young children and members of the business, medical, and child care communities.

During the fall and winter of 1999–2000, the state’s 46 counties created First Steps partnership boards and applied for “Level One” grants to conduct county needs assessments and determine program strategies. County partnership boards vary in size but were designed to consist of up to 32 members<sup>1</sup>. Throughout 2000 and part of 2001,

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<sup>1</sup> Including not more than two members from each of the following categories: prekindergarten through primary educators; family education, training, and support providers; child care and early childhood education providers; health-care providers; transportation providers; nonprofit organizations that provide services to families and young children; faith communities; and the business community. Additionally, the board should consist of at least three parents of preschool children (being served by First Steps programs) and four members of the early childhood education community. After the county partnership board is formed, if necessary to assure that all areas of the county are adequately represented and reflect the diversity of the county, each county legislative delegation may appoint up to four additional members, and

counties carried out their planning work and applied for “Level Two” grants to implement the strategies they had selected. Some counties began implementing their plans in 2001 with the rest following in 2002.

The legislation that created First Steps stipulated that accountability systems be a cornerstone of First Steps to School Readiness. The legislation requires the Office of First Steps to oversee ongoing data collection and to contract for “an in-depth performance audit due January 1, 2003, and every three years thereafter, to ensure that statewide goals and requirements of the First Steps to School Readiness initiative are being met” (Section 59-152-50[6]). Additionally, the “purpose of the evaluation is to assess progress toward achieving the First Steps goals and to determine the impact of the initiative on children and families at the state and local levels” (Section 59-152-160[C]). In order to ensure compliance and cooperation with the evaluation, the legislation also required that “during the course of the evaluation, if an evaluator determines that any state agency has failed to comply with the coordination and collaboration provisions as required in this chapter the final report must reflect that information.” Additionally, the legislation stated that “all County First Steps Partnerships shall cooperate fully in collecting and providing data and information for the evaluation” (Section 59-152-160[C]).

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each of the following shall designate one member: County Department of Social Services; County Department of Health and Environmental Control; Head Start; County Library; and each of the school districts in the county.



## Executive Summary

Shortly after being elected governor of South Carolina in November 1998, Governor Jim Hodges began talking with officials from North Carolina about Smart Start, North Carolina's early childhood education and health program. Governor Hodges was eager to launch such a program in South Carolina where one in seven children arrived in first grade unprepared for school. Less than two months into Hodges' administration, South Carolina lawmakers introduced legislation for what would eventually become the state's First Steps to School Readiness Program. First Steps would be

a comprehensive, results-oriented initiative for improving early childhood development by providing, through county partnerships, public and private funds and support for high-quality early childhood development and education services for children by providing support for their families' efforts toward enabling their children to reach school ready to learn (Section 59-152-010 South Carolina Enabling Legislation, 1999).

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develop, promote, and assist efforts of agencies, private providers, and public and private organizations and entities, at the state level and the community level to collaborate and cooperate in order to focus and intensify services, assure the most efficient use of all available resources, and eliminate duplication of efforts to serve the needs of young children and their families.

The goals of First Steps were identified in section 59-152-30 and are to

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- Mobilize communities to focus efforts on providing enhanced services to support families and their young children so as to enable every child to reach school healthy and ready to learn

First Steps is a comprehensive initiative designed to help prepare children for school by providing funding to support early childhood services through community/county collaborations that address the unmet needs of young children and their families. Funding for this initiative originates at the state level, where it is dispersed to the 46 counties that use it to support a range of programs designed to strengthen families and prepare children for school.

First Steps is a community-driven effort. Counties determine their greatest needs and use First Steps funds to support or enhance the services or programs that will bolster the school readiness of its children. This process has resulted in varied strategies. Examples include improving quality through quality-enhancement grants, staff training and professional development, providing child care vouchers or scholarships to low-income families, expanding 4K classes from half day to full day, establishing new 4K classrooms, expanding Head Start programs, providing summer readiness programs to eligible children entering kindergarten in the fall, and improving parenting skills through programs such as Parents as Teachers (PAT), Parent-Child Home (PCH), and Even Start, as well as English as a Second Language (ESL) training and other family literacy models. Health strategies have included collaborating with local Department of Health and Environmental Control offices to provide expanded health home visitation programs, nutrition education, screenings, free prescriptions, free car seats, dental care, and technical assistance for parents and child care providers. Other strategies have included

making programs mobile so as to bring to children and families services such as library programs and health services and attempting to increase public awareness regarding existing services and referral services (Child Trends, 2003b, exec. summary, pp. 17–19).

First Steps began initially serving children, their families, and their communities with state-allocated monies and a required 15% local county match. The first year's allocation was \$20 million. State funding for First Steps increased to \$30 million in fiscal year 2001 then gradually fell to about \$18 million in fiscal year 2005. Total state appropriations have totaled \$94,880,000 between 1999 and 2004. Because First Steps has garnered significant corporate and community support as well as federal funding (more than \$25 million), it has been able to decrease its reliance on state funds from 100% in 1999 to less than 72% in 2004 (South Carolina Office of First Steps, 2005a).

As would be expected, as funding has declined over the years, so have expenditures. Over the past four years, total expenses declined 41%, with spending of state allocated funds decreasing while spending of private donations of cash, services, and materials and federal grants have increased.

Even though allocations and subsequent expenditures have both declined in the past four years, First Steps has consistently invested in several types of programs. Specifically, during its six years of operation, First Steps has invested over \$27 million dollars enhancing early education, over \$36 million strengthening parents and families, over \$8 million increasing access to and enhancing the quality of child care, and just over \$4 million providing health care and other services to children and families.

Over time, First Steps has maintained its commitment to quality enhancement programs, child care expansion, and health programs with steady funding levels. Its investment in family skills and literacy programs have increased. Even though spending on early education has declined, it remains the second largest First Steps investment. Spending on transportation and other programs (e.g., public awareness campaigns) have steadily declined.

The consistent investment over time in programs and services targeting parents, preschool, and child care are a direct reflection of county needs assessments. South Carolina suffers from above-average poverty compared to other states. According to Kids Count data from 2004, 23% of the state's children live in poverty, compared to 18%

nationwide. The median family income for families with children in South Carolina is \$43,000 compared to \$50,050 nationwide. In addition, 35% of the state's children live in families where no parent has full-time, year-round employment (Annie E. Casey Foundation, 2004). Just over half the state's students are eligible for free or reduced-price lunches, the seventh highest percentage among states nationwide (University of South Carolina, 2005). Both South Carolina's infant mortality rate and incidence of low birth weight babies are higher than the national average. Infant mortality is 9.3 per 1,000 births in the state compared to 7.8 per 1,000 births nationwide. In addition, 10% of children are born with low birth weight compared to 7.8% nationwide (Annie E. Casey Foundation, 2004).

South Carolina has some of the poorest student achievement statistics in the country. The state ranked 41 out of 50 states in performance on the National Assessment of Educational Progress (NAEP) fourth-grade reading test and 32 out of 50 on the NAEP fourth-grade math test. In terms of average SAT scores, the state ranked last among the states with an average score of 993 out of 1600 (University of South Carolina, 2005). The state's literacy rate is also quite low, with 25% of adults falling into the lowest of five literacy levels and 56% falling into the lowest two literacy levels, according to 1998 estimates from the National Institute for Literacy (Redder, 1998).

In 2004, 38% of South Carolina children lived in single-parent households, with 31% living with their mothers and 7% living with their fathers. Nationwide, 30% of children lived in single-parent households that year, 24% with their mothers and 6% with their fathers. Also in 2004, 7% of South Carolina children lived in households where grandparents served as caregivers, compared to 4% nationwide. (Annie E. Casey Foundation, 2004). The proportion of children living in households where the household head dropped out of high school is 16% compared to 17% nationwide (Annie E. Casey Foundation, 2004).

In 2004, there were 1,631 licensed child care centers and 1,947 licensed family child care homes in South Carolina (National Child Care Information Center, 2004). Of the child care centers, only 132 (less than 1%) were accredited based on high quality standards established by the National Association for the Education of Young Children

(NAEYC). Clearly, First Steps investments in supporting children and families at risk and improving the quality of available services are well-warranted.

The legislation that created First Steps stipulated that accountability systems be a cornerstone of First Steps to School Readiness. The legislation requires the Office of First Steps to oversee ongoing data collection and to contract for “an in-depth performance audit due January 1, 2003, and every three years thereafter, to ensure that statewide goals and requirements of the First Steps to School Readiness initiative are being met” (Section 59-152-50[6]). Additionally, the “purpose of the evaluation is to assess progress toward achieving the First Steps goals and to determine the impact of the initiative on children and families at the state and local levels” (Section 59-152-160[C]). In order to ensure compliance and cooperation with the evaluation, the legislation also required that “during the course of the evaluation, if an evaluator determines that any state agency has failed to comply with the coordination and collaboration provisions as required in this chapter the final report must reflect that information.” Additionally, the legislation stated that “all County First Steps Partnerships shall cooperate fully in collecting and providing data and information for the evaluation” (Section 59-152-160[C]).

The first evaluation of the First Steps initiative was conducted by Child Trends and released in 2003. That evaluation took place when some counties’ programs had been in existence less than a year, and many others were still in an implementation phase. As a result, the 2003 evaluation focused primarily on the implementation of the First Steps initiative rather than outcomes. The report makes clear that the researchers felt that evaluating outcomes at such an early stage of the development of the First Steps initiative could potentially underestimate the effects of the programs. They attempted to determine whether First Steps had identified research-based best practices, implemented them effectively, and begun to provide them to the appropriate populations (Child Trends, 2003a, p. 11). Major findings from the Child Trends evaluation included the following:

- Administrative structures at the state and county levels were successfully created and county-level needs and resource assessments and strategic planning were conducted.

- During the implementation phase, First Steps adhered to a set of guiding principles that were supported by research in early childhood development. These principles included focusing on the whole child, viewing school readiness as a multidimensional construct, emphasizing community mobilization and collaboration, and meeting specific community needs, among others.
- First Steps engendered a “culture of accountability” regarding expenditures and program implementation. This included adequate financial tracking and detailing of expenditures.
- First Steps had fostered collaboration and built capacity at the state and county levels in a way that should enhance services for young children and their families. First Steps’ programs were based on “best practices” in early education, child care, and parenting and family literacy.
- South Carolina spends substantially less per preschool child through First Steps than the school readiness programs in North Carolina or California. In fiscal year (FY) 2001, North Carolina’s Smart Start spent nearly \$370 per child younger than six. In FY 2001, California’s First Five spent nearly \$280 per child younger than six. First Steps spent just over \$120 per child in FY 2002.
- All counties met their fiscal year 2002 matching contribution with a statewide matching rate of more than 28% – substantially exceeding the enabling legislation’s 15% requirement.

This document summarizes the methods, findings, and subsequent recommendations of the second evaluation of the state of South Carolina’s First Steps to School Readiness Program, which was conducted by the High/Scope Educational Research Foundation.

The Child Trends 2003 evaluation was an implementation evaluation that asked the question “Is First Steps doing the right things in the right ways for the right people?” This High/Scope 2006 evaluation both revisits and moves beyond these research questions and findings. This is an outcomes evaluation that asks not only is First Steps doing the right things in the right ways for the right people but also asks whether the

programs supported by First Steps funding are getting the “right” results—that is, improving the readiness of children for school.

## **Overview of the Evaluation**

The importance of strategically deciding which parts of an initiative like First Steps to focus on in an evaluation and what strategies to use cannot be overstated. Each individual part presents its own set of challenges to evaluation. Through an interactive process over the course of several months, High/Scope and First Steps staff and board members worked collectively to identify appropriate, necessary, and measurable evaluation questions. Four broad thematic questions shape the evaluation questions being asked and answered. Those questions are discussed below.

### **Who Is Being Served?**

(Is First Steps serving the right people?) The First Steps initiative’s mandate is to provide services to insure that all children are ready for first grade. Within that mission is an emphasis on the state’s most disadvantaged children and families since they are more likely to not be ready for school. A basic concern is whether or not dollars are being spent on programs that reach the neediest South Carolinians. “Who is being served?” is a fundamental question in this evaluation.

### **What Is the Range of the Services Being Provided?**

(Is First Steps providing the right services?) Counties are able to use their First Steps funds to support a wide range of programming. Funds are meant to expand, extend, improve, or increase access to services. Individual counties conduct community needs assessments that guide their investment strategies. The question “What services are being provided?” can also be posited as “Are First Steps funds being spent on well-documented, research-based programs that target and provide effective services to children and families at risk?”

## **What Is the Quality of the Services Being Provided?**

(Are First Steps services implemented in the right ways?) A consideration of the impact of programs that benefit from First Steps funds on child outcomes cannot be separated from an investigation of program quality. Dollars may be reaching target constituents to little or no effect if the quality of programming is inadequate.

## **Do the Services Impact the Outcomes of Participants?**

(Are First Steps services getting the right results?) The most crucial concern for many supporters and skeptics alike of the First Steps initiative is its impact on outcomes. Specifically, everyone is interested in child outcomes that relate to school readiness. The question of impact, however, is not just limited to the assessment of child outcomes and how they are measured. Fundamental questions regarding the types of programs, the implementation of those programs, staffing issues, and how all of these factors influence outcomes must be considered as well.

This evaluation focuses on four specific areas of the First Steps experience: early education, child care (which includes quality enhancement programs and child care expansion), parenting and family strengthening (family skills and literacy programs), and the “value-add” of First Steps. Each of these four foci address issues critical to the future by providing insight into the experience and value of the South Carolina First Steps to School Readiness initiative. The first three represent 80% of all First Steps dollars spent in FY 2003. First Steps investments have been concentrated in these areas since the initiative’s inception. In each of them, characteristics of the programs and characteristics and outcomes of program participants are described and/or evaluated. The fourth area of investigation, the added value of First Steps, focuses on a basic policy question: Does the strategy of investing in early childhood care and education programs through First Steps allow for efficiency, effectiveness, or innovation that otherwise might not have happened?

## Problems During the Evaluation

As described in the full report in the data problems discussions, significant problems arose or became evident during the course of this evaluation. General problems which affected our ability to evaluate participant and program outcomes in the areas of early education, parenting and family strengthening, and child care included the following:

- During the first two years of First Steps program implementation 2000–2002, First Steps children were not identified in Department of Education (DOE) or First Steps databases, or data that was collected was incomplete,
- Due to rules and regulations regarding privacy and proprietary issues within Office of Research and Statistics (ORS), High/Scope was not able to verify the methods used to create the databases provided to it nor were we able to verify the accuracy of these databases.
- First Steps databases, collected by the ORS, have serious missing data problems. Counties have only been required to provide complete records on 50% of their clients. This policy, combined with methods used by the ORS to create unique identification numbers, resulted in uncertainty regarding the exact number of First Steps clients. This raises serious concerns regarding whether databases provided are representative of all First Steps clients and whether results can be generalized. Analysis specific to First Steps clients must be interpreted with caution.

The participant-level questions in early education and parenting and family strengthening were developed with the understanding that pre-existing data as well as new data collection would contribute to the answers. Existing data sources were to include the First Steps data systems, the South Carolina data warehouse, the Program Evaluation Reports (PERS) provided by participating counties, the State DOE databases (which were to include the PRECODE, Early Education ATOM, and the Iowa Test of Basic Skills (ITBS)), as well as the South Carolina Readiness Assessment (SCRA) and Palmetto Achievement Challenge Test (PACT) databases. The SCRA database was to

include evaluations in kindergarten and first grade. The second-grade ITBS scores, 4K Developmental Indicators for the Assessment of Learning, Third Edition (DIAL-3) evaluations, and PACT scores in third grade were also to be provided.

Some of the problems specific to the early education evaluation included:

- Individuals within the DOE were initially reluctant to share data. This resulted in time delays that impacted High/Scope's ability to analyze and clarify data and to potentially look for alternative methods of answering research questions.
- Resistance arose from school districts that were reluctant to allow researchers into classrooms to conduct observations. In some instances, teachers were allowed to opt out of the evaluation by their principals or districts; in other situations, evaluators were turned away upon arrival. By the time permission was obtained to conduct Preschool Quality Assessment (PQA) and Creative Curriculum Implementation Checklist (CCIC) data collection, it was late in the school year and a sufficient number of observations that would allow for extensive analysis could not be completed.
- DIAL-3 data collected by the DOE does not contain the date of evaluation. Without this information it is impossible to properly calculate child age at date of testing and their scores, and to report results. As a result, this data could not be used.
- ITBS data was missing significant amounts of data, making it unreliable. For the two years of data available, 46% and 55% of the language totals and 62% and 78% of the math totals were missing. This data was not used.

Some of the problems specific to the evaluation of the parenting and family strengthening programs included:

- Data was unavailable on some of the programs that First Steps funds in parenting and family strengthening.

- The number and variety of programs funded by First Steps makes evaluation difficult. Small numbers of participants in many programs results in insufficient sample sizes for comprehensive data analysis.
- Due to the still relatively new nature of the First Steps initiative many of the children whose parents participated in the parenting and family strengthening programs are not yet old enough to be included in cohort data.
- Twenty-two percent of the children whose parents participated in parenting and family strengthening programs were able to be identified as age-eligible in the data provided but not every eligible client had cohort data; therefore, the sample used represents 18% of the total identified age identified clients. Each cohort is a data set of all children who attended kindergarten during that school year. Additionally, not included were about 7,000 adult clients (based on the data provided by ORS), who cannot be identified either because they did not have identification numbers (ID) or their ID cannot be matched with any child clients.

Some of the problems specific to the child care evaluation included:

- Navigating multiple bureaucracies to get access to data resulted in time delays which impacted High/Scope's ability to analyze and clarify data and potentially look for alternative methods of answering research questions.
- First Steps has either not been collecting program information about their participants or data collected is not useful for evaluation. For example, when asked to provide a listing of all child care centers who had participated in quality enhancement during the past year First Steps was unable to do so. First Steps state staff contacted individual counties asking for this information which was used for survey distribution.
- First Steps was unable to complete data collection they were responsible for. First Steps was to provide trained evaluators to complete ECERS, ITERS, and FDCRS visits in randomly selected child and family/group child care centers. They were unable to complete a sufficient number of ECERS and ITERS and unable to

complete any FDCRS. This resulted in an inability to analyze child care quality in a meaningful manner.

## Early Education

Increased access to high-quality early education is at the heart of the First Steps initiative. In Section 59-152-30, the First Steps to School Readiness Act stated as one of its goals to “promote high quality preschool programs that provide a healthy environment that will promote normal growth and development” with particular emphasis on “school readiness” and “quality cognitive learning.”

Throughout its existence, on average 29% of First Steps spending has been on supporting and expanding early education. During its six years of operation, First Steps has invested over \$27 million dollars enhancing early education. Strategies used include expanding four-year-old kindergarten (4K) from half day to full day, adding new classrooms, expanding Head Start, and developing summer readiness programs. The evaluation questions related to the First Steps early education programmatic components are as follows:

1. What are the descriptive characteristics of teachers who teach in First Steps-funded 4K classrooms?
2. What are the curricular models implemented in First Steps-funded 4K programs, and what is their level of fidelity of curricular implementation?
3. What is the quality of First Steps-funded 4K programs?

The evaluation questions related to the participants in early education programs are as follows:

4. What are the descriptive characteristics of children who participate in First Steps 4K-funded classrooms?

5. What are the short- and long-term outcomes for children who participate in First Steps 4K-funded programs?
6. Is there a significant difference in outcomes for First Steps children who participate in half- versus full-day 4K?

## **Methods**

Program level questions were addressed using several methods. Teacher qualifications for both teachers and assistant teachers employed in First Steps-funded classrooms were ascertained using the teacher certification database provided by the South Carolina Department of Education (DOE), the South Carolina data warehouse, and the Program Effectiveness Reports (PERS) provided by First Steps. Information about curricular models, implementation fidelity, and classroom quality were gathered in several ways. Using available information we identified which programs were using which curricular models. It was determined that two curricula most often used in 4K classrooms are High/Scope and Creative Curriculum. Classrooms identified as High/Scope were randomly selected to be evaluated for curricular fidelity using the High/Scope Program Quality Assessment (PQA) and classrooms identified as using the Creative Curriculum were randomly selected to be evaluated using the Creative Curriculum Implementation Checklist (CCIC). Classroom quality in First Steps funded 4Ks was evaluated using the Early Childhood Environment Rating Scale (ECERS).

The participant-level questions were addressed using First Steps data systems, the South Carolina data warehouse, the State DOE databases (which include the PRECODE and the Early Education ATOM), as well as the SCRA and PACT databases. The SCRA database included evaluations in kindergarten and first grade. Additional outcome data was made available to High/Scope by the University of South Carolina (USC). Specifically, the state of South Carolina (partially funded by First Steps) participated during the fall of 2004 in a multi-state evaluation of state-funded preschool conducted by the National Institute for Early Education Research (NIEER) at Rutgers. USC researchers collaborated with NIEER to collect fall 2004 data for that project (see Lamy et al, 2005). That data was shared with High/Scope by USC. For this evaluation, the NIEER preschool

children were assessed a second time in the spring of 2005 to examine short-term positive effects on child outcomes of preschool participation.

## **Findings**

A general lack of sufficient sample sizes hindered the ability to fully describe the programmatic components of 4K and First Steps-funded classrooms and also limits generalizations that can be made. What can be said is that the majority of teachers who teach in 4K are certified in early childhood (65%) and have a master's degree (51%). Rates of early childhood certification and a bachelor's or higher degree earned tend to be higher in First Steps-funded classrooms than in other 4K classrooms. Curricular fidelity and the quality of classrooms indicate that, on average, classrooms are of adequate quality but are not implementing the High/Scope curriculum with a high degree of fidelity.

The analysis of cohort data clearly indicates that children who receive First Steps funds experience more risk factors for school failure than those who do not. They are more likely to be poor and are more often minorities compared to those who do not attend 4K at all. Among First Steps-funded with 4K children, those enrolled in full-day 4K are the most disadvantaged. Overall, however, First Steps-funded children who do not attend 4K are the poorest and most at-risk.

There is evidence that all children who attend 4K increase their language, math, and learning approaches over the course of one preschool year. There is also evidence that 4K produces better long-term outcomes for all children who attend. There is a trend among First Steps children who attend 4K of improvement in their odds of grade retention and they generally scored higher on SCRA compared to non-4K First Steps children. Children who participated in First Steps-funded programs without 4K are most at risk for special needs placement and lower academic achievement compared to both their First Steps-funded with 4K and non-First Steps 4K peers.

There appears to be consistent evidence that enrollment in full-day 4K has positive effects on child outcomes particularly during the kindergarten year. It is clear from these analyses that while, in general, 4K experiences reduce the odds of being retained, full-day 4K has a greater impact in reducing the odds of being retained. A

consistent finding within the SCRA and PACT scores is that 4K effects are stronger for minority children than for White children.

## **Quality Enhancement Programs and Child Care Expansion**

Because of the strong relationship between child care quality and children's development and readiness for school, First Steps has focused a significant portion of its efforts on improving child care experiences for children in South Carolina. During its six years of operation First Steps has spent over \$8 million increasing access to and enhancing the quality of child care in South Carolina. The goals of First Steps to School Readiness in the area of child care are to

- Increase the availability of quality childcare choices for parents as measured by increasing numbers of child care providers operating at higher levels of quality.
- Increase the number of child care vouchers available to SC families for quality child care.
- Increase the school readiness focus in child care settings.
- Increase the leverage of federal and private resources to serve the state's most at-risk children.
- Increase the number of child care workers achieving progress toward early education certification and continued professional development.
- Improve the quality of physical and learning environment in child care settings of all type.
- Expand public and private partnerships in 4K education.

The three primary areas in child care that First Steps focuses on are child care quality enhancement, child care worker professional development, and expanded access to quality child care. Strategies adopted by First Steps include the following:

- Quality enhancement: First Steps provides funds to help child care providers improve their quality by upgrading their child care licensing or ABC-enhanced requirements and by offering technical assistance and mentoring.
- Staff training and development: First Steps provides and funds staff training, development and mentoring to improve quality in child care settings.
- Increased availability of child vouchers: First Steps provides funds to increase the number of child care subsidies to eligible families.

Research questions were developed by focusing on these strategies. The first four research questions are as follows:

1. What types of child care programs receive First Steps funding?
2. What types of technical assistance are available to child care centers as a result of First Step funding?
3. What types or forms of teacher training (enhancements) are provided to programs/staffs?
4. Is there evidence of program quality improvement as a result of the training provided by First Steps funding?

The pivotal question in the child care area is about the types of preschool experiences that children receive in the programs they attend using vouchers. The logic model, while indirect, is research-based, that is, higher quality preschool experiences lead to better child outcomes. The focus here is on the impact of investments in teachers and classrooms.

One of the strategies of First Steps in the area of child care is to increase the number of child care vouchers available to SC families. Thus the remaining research questions are related to that strategy:

5. What are the descriptive characteristics of families receiving First Steps and ABC child care funding (First Steps scholarships, ABC vouchers)?
6. How long does the average recipient receive funding?

## **Methods**

High/Scope developed a questionnaire that was distributed to all child care centers that, according to county First Steps offices, had participated in quality enhancements and training during the previous year. First Steps office staff provided a listing of the child care centers surveyed. Surveys were mailed directly to each child care center and family/group day care on the list. Responders were provided with self-addressed stamped envelopes to allow the questionnaires to be returned directly to the High/Scope Foundation. Two versions of the child care survey were created, one for child care centers and a separate one for family/group day cares. Questions on both surveys included inquiries regarding background information for the centers (e.g., enrollment, staff qualifications and experiences) and information regarding the center's experiences with First Step quality enhancements and training. Both surveys included questions that addressed the quality of the child care environments.

The Office of First Steps and the South Carolina Office of Research and Statistics data warehouse were utilized to describe the characteristics of families receiving First Steps child care funds. Data Warehouse files were utilized to answer questions regarding client participants. First Steps participants who received ABC vouchers were compared with non-First Steps recipients of ABC vouchers to describe the characteristics of recipients.

## **Findings**

The evidence presented in this section describe the relationship between quality enhancements, program quality, and the data on child characteristics. There is a link between the provision of quality services provided in child care and the most disadvantaged South Carolinians. Evidence showed that recipients of First Steps child care scholarships and ABC vouchers were disproportionately poor and minority. It highlighted that the First Steps goal of reaching the most at-risk children and families was being achieved.

There was limited, self-reported evidence that the programs those children might attend were improving in quality and that those improvements could be linked to participation in quality enhancement activities. The strongest evidence came from Richland County, providing specific data that showed improved quality in pre/post training assessments. Results suggested the ability of First Steps quality enhancement to improve child care quality particularly in areas related to cognitive outcomes for children – specifically listening, talking, and learning activities.

Self-reported quality ratings were significantly correlated to the teachers' levels of education, the amount of training received in the last twelve months, and the focus on training in staff meetings. Specifically,

- The higher teachers' level of education the more likely they were to report providing more developmentally appropriate learning experiences and appropriate staff/child interactions.
- The greater the amount of training the classroom teacher had received in the last twelve months the more likely they were to report engaging in more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.
- The teachers who worked in centers that placed greater importance on staff training or worked in centers that had more resources for staff training reported providing more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.

Participants in First Steps quality-enhancement initiatives overwhelmingly reported high levels of satisfaction with the quality-enhancement programs that First Steps subsidizes.

Children and families in 2003–2004 who were recipients of First Steps child care expansion initiatives were overwhelmingly minorities, and were recipients of food stamps, Medicaid, and TANF at higher rates than their non-First Steps counterparts. They

were significantly more likely to have received free and reduced lunch and to have had more handicapping conditions. Their mothers had significantly lower education levels. It is clear that First Steps child care expansion recipients were significantly more likely than their non-First Steps peers to be Black or Hispanic, have more health problems and handicapping conditions, and be the poorest of the poor.

While information presented provided support for the argument that quality enhancements improved program quality, this evidence also did not support statements of causality. Data did not allow for definitive statements or broad generalizations to outcomes benefiting the First Steps population of programs and children. It was extraordinarily clear however, that in the areas of child care expansion, First Steps is clearly serving the poorest and neediest families.

## **Parenting and Family Strengthening**

First Steps has focused a significant portion of its efforts on improving parenting and family strengthening initiatives in South Carolina. During its six years of operation First Steps has spent over \$36 million strengthening parents and families. The goals of First Steps to School Readiness in the area of parenting and family strengthening are to

- Increase family literacy and parent education levels.
- Improve parental employability and employment.
- Increase the effectiveness of parenting related to child nurturance, learning, and interaction, language, health and safety.
- Increase successful parenting and family literacy programs targeting, service integration, and results documentation.
- Increase parent involvement in 4K–12 education settings.

Strategies adopted by First Steps to promote parent and family strengthening have included:

- Parent Education: First Steps funds programs which increase parents ability to stimulate children’s intellectual, social, and physical development with parent programs.
- Early Literacy: First Steps funds programs that enhance the abilities of families to read with their children.
- Countdown to Kindergarten: First Steps funds programs aimed at enhancing early parental involvement for children who are screened as at risk for school failure prior to kindergarten entry.

When this evaluation was planned, the intent was to follow a similar pattern in parenting and family strengthening programs that was used in the early education and child care investigations. Specifically, the intent was to ask a set of questions about program characteristics, including quality, and a set of program participant questions (characteristics and outcomes). A convergence of data problems and the high level of investment in parenting and family strengthening programs within the First Steps initiative dictated a slightly different evaluation agenda. The focus the evaluation in this area is almost exclusively on child outcomes.

## **Methods**

The First Steps data system as well as the South Carolina data warehouse was used to conduct a secondary analysis of parent and child outcomes as well as to describe participants of the parenting and family literacy programs. Two specific analyses were conducted with parenting and family strengthening data. The first looked at the relationship between parenting and family strengthening involvement and child outcomes (grade retention, special needs placement, and SCRA scores). The second is a case study looking at short- and long-term child outcomes as well as adult parenting outcomes using data provided by the Lexington School District 3. Analysis was conducted on several data sets provided by the Office of Research and Statistics as well the state Office of First Steps and several county First Steps programs. Only the results from the most complete data set are reported. The decision to only include one was made because, while other

districts and programs generously provided data, results were consistent between them and the smaller data sets provided no new insights into the results.

## **Findings**

It was anticipated that it would be difficult to find a link between parenting and family strengthening programs and academic child outcomes. A serious problem exists in evaluating parent programs and their impact on those types of child outcomes because the link between parenting and family programs and child outcomes is indirect. That is, programs can impact parents' beliefs, knowledge, and practices in ways that are likely to lead to positive child outcomes; however the difficulty is that many factors can affect the size, duration, and nature of the outcomes. These could include the age of a child when his or her parent is involved in the program; the amount, frequency, and length of involvement; and the intensity and comprehensive nature of the program, as well its quality. One would not expect dramatic short-term changes in child outcomes as a result of parenting and family literacy programs. Instead, over time hopefully child outcomes should be affected by both short- and long-term changes in parent outcomes. In this instance there was little evidence of a relationship between programs and outcomes.

Due to the still relatively new nature of the First Steps initiative many of the children whose parents participated in the parenting and family strengthening programs are not yet old enough to be included in cohort data. Sixty-six percent of the children whose parents participated are not yet old enough to have attended kindergarten. Twelve percent are either too old or are missing age data. Twenty-two percent were able to be identified as age-eligible in the data provided. Although 22% of identified clients are age eligible, not every eligible client had cohort data; therefore data used only represents 18% of the total identified clients. Not included in this table are about 7,000 adult clients (based on the data provided by ORS), who could not be identified either because they did not have ID or their ID cannot be matched with any child clients.

Data that was available indicated that these programs are clearly targeting the most vulnerable families. In every category First Steps participants were poorer and more at risk than their nonparticipating counterparts. The evidence presented here does not consistently indicate significant enhancements for most children of the participants. In

fact, some of the evidence suggests a negative relationship between program participation and child outcomes. The reason for this may lie in the fact that many of these programs are working with families and children who, because of their difficult situations, experience more negative outcomes.

The two programs that consistently demonstrated positive outcomes for children were the family literacy programs English as a Second Language (205) and Family Literacy Model Programs (211). Reasons for this may be in the comprehensive nature of family literacy model programs which require activities in four key components: child care, adult education, parenting, and parenting and child interaction. It should be kept in mind, however, that sample sizes were small and not very reliable.

## **The Added Value of First Steps**

One of the most important components of the First Steps initiative is that the results are achieved through partnerships. Partnerships at the state and local levels and among public and private entities are the cornerstone of the First Steps initiative. Explicit in the original legislative statement is a public policy focus on efficiency and effectiveness. Implicit is an assumption those goals are best achieved by giving local communities the discretion to determine their greatest needs and how funds will be used. The structure of First Steps relies on what is called by policy analysts “bottom-up” (as opposed to top-down) decision making. Advocates of this approach argue that it leads to greater efficiency and effectiveness. It is also argued that it supports innovative problem solving. Contrastingly, a “top-down” perspective argues that initiatives like First Steps can lead to inconsistent services and waste. Both sides agree that as policies go from ideas to actions, the decisions made on the ground mean the success or failure of a program (e.g. see Pressman and Wildavsky, 1973; Lipsky, 1980; Peterson, Rabe, and Wong, 1986; Wilson, 1989). The essential difference is that one side sees the key to success in local control and discretion while the other values a centralized decision-making structure.

For First Steps, the question becomes, has a structure of local decision making and interagency cooperation lead to efficiency, effectiveness, and innovation in the provision of early childhood care and education services across the state? Deeply connected to this question is the fact that First Steps is a funding stream. What is, in fact, the added value of channeling funding first through the state and local First Steps offices instead of investing directly in the agencies implementing the programs that First Steps funds support?

The importance of this “value-add” question became increasingly clear over time as High/Scope gained a nuanced understanding of the political context of the initiative. It also became clear that this evaluation would be incomplete without a focus on the unique relationships that have developed over the course of the life of First Steps, particularly during the last three years. As a result, evaluation questions and methods were developed to address this area.

Research questions were developed that addressed the unique issues related to county partnerships. They are:

1. How do county First Steps boards of trustees operate? What is their size and methods of communication? What types of assistance do they provide to Executive Directors (EDs)?
2. What is the nature of the relationships between county First Steps offices and the state First Steps office?
3. Does First Steps operate differently than other state departments or programs?
4. How does the existence of First Steps influence how other state departments or programs operate?

## **Methods**

Phone interviews were developed which were used to elicit information from two of the First Steps stakeholders— First Steps Executive Directors (EDs) and local county Board Chairs (BCs). A Web-based survey was used to reach non-First Steps respondents. Interviews addressed issues such as size, methods of operation and communication at the county level as well as relationships between county First Steps offices and the state First

Steps office. Other issues addressed whether or not the day-to-day operations of First Steps state and local staff and board members have created a well-run bureaucracy. They were also designed to determine if the structure of the initiative has led to new, better ways of providing services to South Carolinians.

## **Findings**

Has the existence of First Steps with its structure of local decision making and interagency cooperation led to efficiency, effectiveness, and innovation in the provision of early childhood care and education services across the state? This question was at the heart of the addition of “value-add” research questions to the evaluation. Interviews with local executive directors and board chairs as well as surveys solicited from non-First Steps departments and organizations, indicated mixed answers.

Respondents had many good things to say about First Steps but also had criticisms about how the program is run. Executive Directors had generally less optimistic views than local First Steps county Board Chairs regarding relationships between the state Office of First Steps and the local offices. Affiliated and non-First Steps-affiliated respondents tended to see few differences in how the state First Steps office operates compared to other state departments and programs. This suggested that the decentralized model has not resulted in new bureaucratic efficiencies. It seemed that the layered approach of a state office and then local offices and boards of trustees undermined some of the county-level discretion that resulted in bureaucratic business as usual. Even so, there was evidence that the availability of First Steps funds had allowed some room for innovative approaches both within First Steps and among collaborating partners.

## Recommendations

This executive summary began by reminding readers of the goals and results of the 2003 evaluation; it concludes by revisiting recommendations made in 2003. It is important to highlight those recommendations because many of the issues brought to the forefront in the past continue to be challenges for First Steps in the present. The Child Trends report highlighted four categories for improvement: a focus on the quality of programs; data collection; strengthening procedures and administrative structures in the initiative; and spending. Specific recommendations that are still relevant include:

- First Steps should increase the focus on program quality across the state. Suggested areas for improvement included further training for teacher's aides in 4K classrooms and special focus on child care initiatives to improve quality in centers.
- First Steps should continue to provide training for executive directors and county board partnerships in all areas but with a special focus on fiscal areas, Program Effectiveness Reports (PERs), and the challenges counties faced while implementing First Steps. Many similar challenges were encountered across counties such as a lack of transportation and qualified staff. The report indicated the need to develop mechanisms that would allow counties to share experiences.
- There should be improvements in the standardization and clarity of administrative procedures between the state and the counties.
- First Steps should strengthen the evaluation processes. The report identified a need to create a method for tracking family and child receipt of services that ensured consistency in the data collected by the counties and unduplicated counts. It also described the need to appropriately select and develop guidelines for child assessments across programs.
- There needs to be adequate resources to sustain First Steps efforts so as to continue the strengthening of the quality of the programs, data collection, and administration.

## **Looking to the Future**

The work done by High/Scope for First Steps includes two phases: an evaluation phase and a consultative phase. The questions asked and answered here are a part of the evaluation phase. During the second phase of this project, High/Scope will assist the First Steps office and board of trustees with preparation for the 2009 evaluation. Recommendations for change resulting from this evaluation are focused on three areas: program investment; data management; and organization, bureaucracy and collaboration. In some of these areas, First Steps has already documented the recognition of a need for change. For others future initiatives should be considered.

## **Program Investments**

Over the past several years, First Steps has invested the majority of its resources into supporting and expanding 4K, improving access to and the quality of child care, and developing parenting and family literacy programs. This last category has been growing and is currently First Steps largest investment.

First Steps is meeting its legislative mandate to reach the neediest South Carolinians. However, the currently changing context of state-funded preschool initiatives could mean that a priority for serving children at risk of school failure is supplanted by a desire to provide access to quality early childhood education programs to all children and families. Universal preschool in and of itself is an excellent idea. The question for all states, and First Steps in particular, is how to invest limited funds in ways that are likely to produce the greatest gains. There is a delicate balance that must be struck between the cost of creating more programs and insuring that any program that exists is of high quality. Additionally, there is the challenge of deciding on a preschool-focused strategy or a comprehensive services strategy like First Steps (Christina & Nicholson-Goodman, 2005).

It is recommended that First Steps continue to invest its limited resources in providing quality services that have evidence of effectiveness to the neediest children. The strongest evidence of child outcomes in this evaluation comes from the early education analyses. There was a positive, significant impact on child outcomes that can

be attributed to 4K attendance. Further, the evidence shows that children benefit more from a full-day 4K experience than a half-day experience. The positive effects of full-day are magnified for minority children.

Considered together, the early education and parenting child outcomes findings raise issues for future First Steps investments. Consideration needs to be given to what types of programs First Steps will continue to fund in the future. While many programs have great value to children and families, not all of them (particularly parenting and family strengthening) have a clear, direct, and measurable link to the school readiness outcomes measured in this evaluation. If the only concern of First Steps is measurable increases in school readiness, spending should focus less on parenting and family strengthening programs and more on providing quality preschool and child care experiences for children at risk for school failure.

On the other hand, if the goal of First Steps is to continue to provide comprehensive services and programs that support families in an effort to increase school readiness, then the focus of evaluation needs to be measured by the impact that individual programs have directly on parents and families. Parents' knowledge or skills need to be measured directly to document gains for the adult participants. Additionally, the focus of child outcomes should be on child well-being and child/parent relationships that are more directly linked to the content of the parenting and family literacy programs (e.g. decreased incidents of abuse or neglect, increased levels of parent-child communication/positive interactions, more time spent reading to one's children). These measurements of parent and family outcomes need to be collected pre- and post-implementation, using a common set of tools across programs, that are made available directly to First Steps for evaluation purposes to justify expenditures in any particular program.

It is also recommended that First Steps consider limiting the scope and number of parenting and family literacy programs in favor of supporting a smaller number of programs. Investments should be in those programs that have a documented history of providing specific gains for parents and families. With limited funds available, First Steps cannot continue to offer such a wide berth of potential programs. Programs with very low numbers of participants or programs that do not have easily measurable outcomes that

can be tied to family improvement should be eliminated from, or have low priority, in a First Steps investment strategy.

## **Data Management**

As is painstakingly noted throughout the full report, there were answers that could not be given and data analytic techniques that could not be pursued due to a lack of available data. In 2003, Child Trends recommended that First Steps prepare for the 2006 evaluation by putting in place systems to track clients and services, that there be a standardization of data collection tools, and that serious consideration be given to whether the Program Effectiveness Reports (PERs) should continue to be collected. Over the course of this evaluation, it became clear that there is still need for significant improvement in these areas. Recently, First Steps has revised the PERs to address the variable quality and comprehensiveness of information provided by the counties. This is a positive development. However, it is recommended that further consideration be given to whether a better system could be devised.

The issue of missing data must be addressed. Systems currently in place are inadequate to collect, manage, and track First Steps participants longitudinally. That counties have only been required to provide complete records on 50% of their clients makes evaluation almost impossible. This policy combined with methods used by the ORS to create unique identification numbers results in uncertainty regarding the exact number of First Steps clients. Large numbers of adult clients cannot be identified or matched with any child clients in the data. Not included in this analysis were approximately 7,000 of these adult clients. This raises serious concerns regarding the validity of any data that is collected. Counties must be required to complete information on their clients.

Since the 2003 evaluation, there still remains a need for a system that standardizes and validates county and vendor participation data. The need for a standardized set of instrumentation, which can be used to compile program and vendor participation information, must be reiterated here. Additionally, High/Scope recommends a standardization of outcome measures for all participating programs and vendors that will

allow for easier evaluation in 2009. The inconsistent manner in which participants and services are tracked must be improved.

## **Bureaucracy and Collaboration**

The lack of available data was not entirely due to First Steps' inconsistent collection of program and client information. This evaluation was challenged by the Department of Education's reluctance to provide information. In some instances there was an outright refusal to participate. In others there was a slow response time to requests that made completing the work difficult and in some instances impossible. In other cases, department personnel did not actively thwart the work, but neither did they support it when they could have.

While First Steps seems to shine in breaking down borders at the local level, there is work to be done at the state level. It is obvious that there are political rivalries between First Steps and the Department of Education. Assuming the best intentions of all parties, this battle over turf and access to information is based in each agency's commitment to providing high-quality services within the context of a limited amount of resources. It is recommended that as First Steps either maintains or increases its investments in 4K, that it works with the Department of Education to build on the strengths of each agency. One strategy may be to look to counties where partnership has been particularly successful and build upon the relationships and lessons learned there.

The state Office of First Steps also needs to reconsider its relationships with county offices. Executive directors offered clear feedback that they are struggling with what they perceive to be a state bureaucracy not in sync with their local needs. It is recommended that the state office provide clearer communication of expectations and guidance on how to meet them. This does not mean creating more layers of reporting. Instead it means simplifying regulations when possible, doing away with rules that are no longer necessary, and installing new expectations of accountability with regards to data collection.

## First Steps' Self-Improvement Strategies

The Office of First Steps and its board of trustees are not unaware of the challenges they face. In recent months they have begun to address problem areas in their policies and practice. Two important documents highlight changes that the state office and the state board of trustees have approved for implementation: the *Blue Print for South Carolina's Children's Update* and the *First Steps 4K Continuous Improvement Plan*.

The *Blue Print for South Carolina's Children's Update*, adopted in January of 2005, listed as problems

- A lack of consistent, statewide priorities that was leading to a diffuse message of First Steps' value to SC.
- An undue emphasis on process and administration leading to a perception of excessive bureaucracy.
- Significant operational "silos" operating within the school readiness community that was limiting collaboration and the most effective use of resources for South Carolina's children.

In adopting this document the First Steps board acknowledged the need for the realignment of the administrative structure of First Steps' statewide organization to reflect state readiness priorities, ensure efficient use of expertise among all school readiness partners, eliminate unnecessary administrative expense, and provide leadership in serving children under 6. The document listed as First Step objectives:

- Evaluate all early childhood education programs, looking for research-based accountability, with the goal of eliminating or redirecting those programs with minimal results.
- Identify and develop collaboration agreements with other public or private entities that can add or strengthen school readiness services within their scope.

- Develop and implement the state’s long-term strategy and action plan for increasing school readiness.
- Ensure that all school readiness initiatives effectively and efficiently utilize public and private resources to increase and improve the readiness of South Carolina’s children.

The second document, *Publicly Funded Prekindergarten in South Carolina: Coordinating Resources for Greater Impact* contains an analysis of, and a series of recommendations for, South Carolina’s publicly funded prekindergarten programs. The document, adopted in December 2005 by the First Steps State Board of Trustees, recommended the following:

- Establish an evidence-based legal definition of “at risk,” to include the requirement that state dollars be used—first and foremost—to serve children whose demographic and/or developmental characteristics fall within its parameters.
- Conduct a demographic audit and matched cohort analysis comparing the attributes of and outcomes derived by students participating in half-day and full-day 4K programs.
- Establish an initial goal of “universal public access” for high-risk four-year-olds (across funding streams and service delivery models).
- Resist the temptation to base important public policy decisions upon over-generalizations of early childhood research findings.
- Utilize the existing legal structure of First Steps—at both the state and county levels—to convene the state’s prekindergarten providers and assist in coordinating their efforts across public funding streams.
- Use state funds to enhance Head Start, not supplant it.
- Redouble efforts to establish common ground with the state’s private providers and develop quality-enhancement initiatives and/or incentives built around areas of broad consensus.

- Examine teacher licensure requirements in an effort to reduce and/or eliminate barriers to the employment of certified early childhood teachers within non-traditional settings.
- Explore the provision of funding incentives to school districts opting to provide prekindergarten programming in private and community-based settings.
- Continue refining the First Steps Public-Private Partnership Model.
- Explore flexible approaches to expansion (as necessary) to avoid both “one size fits all” solutions and minimize the risk to private providers.
- Give careful consideration to providing expanded services to high-risk students before devoting public dollars to universal access for all four-year-old students.
- Explore the provision of income tax deductions to assist families who choose and can afford to pursue prekindergarten programming for their children through non-public means.

Together, both of these documents demonstrate that First Steps has already recognized the potential for changes that will allow it to become a more effective organization. Many of the recommendations in this evaluation have already been identified as problem areas in internal First Steps documents. This bodes well for the future of First Steps. It is an organization that is both dedicated to serving South Carolina’s neediest children and families as well as to continually assessing whether or not they are doing so efficiently and effectively. A comprehensive early childhood initiative like First Steps will always face implementation challenges. In order to fulfill its mission, First Steps must continually assess its policies, practices, and relationships. First Steps is doing just that—and as a result is moving from implementation to impact.

# **From Implementation to Impact**

**An Evaluation of the South Carolina First Steps to  
School Readiness Program**

**2006**



# Introduction

This report is an evaluation of the state of South Carolina's First Steps to School Readiness. First Steps is a comprehensive initiative designed to help prepare children for school by providing funding to support early childhood services through community/county collaborations that address the unmet needs of young children and their families. Funding for this initiative originates at the state level, where it is dispersed to the 46 counties that use it to support a range of programs designed to strengthen families and prepare children for school.

The first evaluation of the First Steps initiative was conducted by Child Trends and released in 2003. That evaluation took place when some counties' programs had been in existence less than a year, and many others were still in an implementation phase. As a result, the 2003 evaluation focused primarily on the implementation of the First Steps initiative rather than outcomes. The report makes clear that the researchers felt that evaluating outcomes at such an early stage of the development of the First Steps initiative could potentially underestimate the effects of the programs. They attempted to determine whether First Steps had identified research-based best practices, implemented them effectively, and begun to provide them to the appropriate populations (Child Trends, 2003a, p. 11). Major findings from the Child Trends evaluation included the following:

- Administrative structures at the state and county levels were successfully created and county-level needs and resource assessments and strategic planning were conducted.
- During the implementation phase, First Steps adhered to a set of guiding principles that were supported by research in early childhood development. These principles included focusing on the whole child, viewing school readiness as a multidimensional construct, emphasizing community mobilization and collaboration, and meeting specific community needs, among others.

- First Steps engendered a “culture of accountability” regarding expenditures and program implementation. This included adequate financial tracking and detailing of expenditures.
- First Steps had fostered collaboration and built capacity at the state and county levels in a way that should enhance services for young children and their families.
- First Steps’ programs were based on “best practices.” For example:
  - Four-year-old kindergarten**—most [early education programs] used developmentally appropriate curricula recognized by the State Department of Education.
  - Child Care**—The evaluation commented on the “innovative” approaches and “pioneering” efforts of county partnerships to improve child care, an area in which little research has been conducted. Thirty-eight child care grantees improved their status, an “encouraging initial trend.” The evaluation also noted, “[It] is important that First Steps child care Scholarships were used to pay for child care meeting certain quality requirements.”
  - Parent Education**—A majority of these programs were based on nationally recognized models.
- South Carolina spends substantially less per preschool child through First Steps than the school readiness programs in North Carolina or California. In fiscal year (FY) 2001, North Carolina’s Smart Start spent nearly \$370 per child younger than six. In FY 2001, California’s First Five spent nearly \$280 per child younger than six. First Steps spent just over \$120 per child in FY 2002.
- All counties met their fiscal year 2002 matching contribution with a statewide matching rate of more than 28% – substantially exceeding the enabling legislation’s 15% requirement.

The Child Trends 2003 evaluation was an implementation evaluation that asked the question “Is First Steps doing the right things in the right ways for the right people?” This High/Scope 2006 evaluation both revisits and moves beyond these research

questions and findings. The new contribution provided here extends the evaluation to a focus on impact. This is an outcomes evaluation that asks not only is First Steps doing the right things in the right ways for the right people but also asks whether the programs supported by First Steps funding are getting the “right” results—that is, improving the readiness of children for school.

## **The Challenge of Evaluating First Steps’ Impact**

Recognizing that improving the readiness of children for school is the core purpose of First Steps funding, we have attempted to identify specific relationships between First Steps investments and readiness outcomes. Nevertheless, it should be understood that there were limitations on available data and analytic methods to provide strong documentation in every area. These strengths and limitations of data and methods are noted and explained as necessary throughout this report.

First Steps funds a range of programs aimed at supporting families and improving school readiness. This comprehensive approach is philosophically in line with a concern for the development of the whole child and a recognition that a child’s development is shaped by his or her community experiences. However, it presents serious challenges to evaluating First Steps impact since this evaluation really focuses on the impact of funding streams as opposed to the effects of any one specific type of program. There are many services provided by many programs, with varying degrees of quality and implementation; therefore measuring impact can be difficult.

The inability to find effects of the Comprehensive Child Development Program (CCDP) illustrates the challenge. As described by its evaluators (St. Pierre et al., 1997), CCDP was a well-defined and well-implemented project. It was designed to “build on existing services” and “create new services when necessary to meet the needs of families and to ensure the provision of high-quality services.” Outcomes of interest for CCDP spanned economic self-sufficiency, parenting skills, children’s cognitive and social development, and children’s health. In a random assignment design, the evaluation found little to no effects of the comprehensive program over a five-year period. What effects they did find were the result of services like center-based preschool classroom experiences. The evaluators suggest that “indirect” services like parenting classes had

little influence on the measured child outcomes that were significantly different from those seen in the control group.

The CCDP lesson applied to this evaluation suggested that the design should prioritize its outcomes of interest and examine those investments that are more directly linked to child outcomes. For example, Vandell and Wolfe's (2000) work chronicles the extensive body of knowledge that shows links between preschool program quality and child outcomes. This suggests an emphasis on evaluating the effects of levels preschool classroom quality, quality enhancement efforts, and teacher professionalization efforts.

Recognizing the complicated nature of evaluating statewide, community-based initiatives for children and the important decisions those evaluations are used to inform, the National Governors Association (NGA) Center for Best Practices put forth an issue brief in 2000 with evaluation guidelines. The three highlighted points in that document can be summarized as follows: Use multiple approaches to demonstrate both the short- and long-term value of the program, have reasonable expectations of the program and the evaluation, and develop a strategy for communicating lessons learned. To conduct this evaluation and write this report, High/Scope was guided by lessons learned from our years of experience in evaluating a wide range of early childhood programs and these NGA recommendations.

## **Trends in Evaluating State-Funded Preschool**

South Carolina is not alone in its focus on the connection between child outcomes and investments in early childhood education and services. A steadily growing number of states are maintaining existing or creating new state-funded prekindergarten programs for children at risk for school failure and universal preschool initiatives. States' commitment to funding early childhood programs rests on brain development research and evidence that high-quality preschool experiences result in long-term benefits for both individuals and society (e.g., see Schweinhart, et al., 2005; Reynolds, 2002; Ramey & Campbell, 1984).

Two coinciding political realities have brought program accountability and evaluation to the forefront of discussions around funding new and existing state early childhood initiatives—state budget deficits and federal legislation. Rightfully so,

policymakers and community stakeholders want to see evidence that these programs are being run efficiently and that they are effective. Additionally, national trends, most notably the No Child Left Behind Act and its preschool companion piece Good Start, Grow Smart, have introduced higher-stakes accountability and an intense focus on academic forms of readiness into the provision of early childhood care and education.

South Carolina is not alone in implementing a comprehensive initiative, but most evaluations of state programs have been focused on classroom-based preschool. For example, while two recent reports from the National Institute for Early Education Research (NIEER), *The State of Preschool, 2003 State Preschool Yearbook* (Barnett et al., 2004) and *The Effects of South Carolina's Early Childhood Program on Young Children's School Readiness* (Lamy, Barnett, & Jung, 2005), mention First Steps as a source of early childhood education funding, the focus of those reports is exclusively on the state's 4K program, not the wide-ranging investments of First Steps.

Similarly, recent evaluations of Head Start, another comprehensive services early childhood program, have focused on the connection between preschool classroom time and academic child outcomes while virtually ignoring the social services and social/emotional aspects of the program. This is true of the Head Start Family and Child Experiences Survey (FACES), the Head Start Impact Study, and the Head Start National Reporting System.

Overwhelmingly, evaluations of publicly funded early childhood programs have been investigations of preschool. While the boundaries of these programs are more defined than a varied services model, there are still challenges to that work. The strongest statements about the impact of a program can be made through a random assignment evaluation design. However, the nature of how state-funded preschool programs are designed and implemented make it difficult, if not impossible, and probably unethical to randomly assign children and families (often at risk) to either receive the program or not. Thus, the majority of evaluations employ quasi-experimental designs that offer evidence of relationships but not causality.

A U.S. Department of Health and Human Services (DHHS) report entitled *State-Funded Prekindergarten: What the Evidence Shows* (December 2003) spends a substantial amount of time detailing the strengths and weakness of quasi-experimental

designs to evaluate state-funded preschool programs. It notes that “as yet there are no randomized experiments that have been conducted within states to determine whether state-funded prekindergarten programs cause positive results for children, including the area of school readiness” (p. 5).

The NIEER 2005 study mentioned earlier tries to avoid the experimental versus quasi-experimental design dilemma by employing a statistical technique called a regression discontinuity design. As explained in the report, through a specific sampling design and analysis, the technique produces comparisons that are very similar to those that might have been produced through random assignment.

This evaluation relies on a mix of existing work and methodologies (e.g., quasi-experimental design, the NIEER statistical solution), secondary analysis of existing data, and the primary analysis of new data. It includes information about children, families, teachers, classrooms, and programs. It uses information collected from interviews, surveys, direct assessment of children using standardized tests, observations of children, teacher reports of children’s skills, and behavior and observation of classrooms. This triangulation of methods and data sources was used to provide a rich description of the context in which to consider the impact of First Steps’ early childhood investments.

# Overview of the Evaluation

## Key Thematic Questions

The importance of strategically deciding which parts of an initiative like First Steps to focus on in an evaluation and what strategies to use cannot be overstated. Each individual part presents its own set of challenges to evaluation. Through an interactive process over the course of several months, High/Scope and First Steps staff and board members worked collectively to identify appropriate, necessary, and measurable evaluation questions. Four broad thematic questions shape the evaluation questions being asked and answered. Those questions are discussed below.

### Who Is Being Served?

(Is First Steps serving the right people?) The First Steps initiative's mandate is to provide services to insure that all children are ready for first grade. Within that mission is an emphasis on the state's most disadvantaged children and families since they are more likely to not be ready for school. A basic concern is whether or not dollars are being spent on programs that reach the neediest South Carolinians. "Who is being served?" is a fundamental question in this evaluation.

### What Is the Range of the Services Being Provided?

(Is First Steps providing the right services?) Counties are able to use their First Steps funds to support a wide range of programming. Funds are meant to expand, extend, improve, or increase access to services. Individual counties conduct community needs assessments that guide their investment strategies. The question "What services are being provided?" can also be posited as "Are First Steps funds being spent on well-documented, research-based programs that target and provide effective services to children and families at risk?"

## **What Is the Quality of the Services Being Provided?**

(Are First Steps services implemented in the right ways?) A consideration of the impact of programs that benefit from First Steps funds on child outcomes cannot be separated from an investigation of program quality. Dollars may be reaching target constituents to little or no effect if the quality of programming is inadequate.

## **Do the Services Impact the Outcomes of Participants?**

(Are First Steps services getting the right results?) The most crucial concern for many supporters and skeptics alike of the First Steps initiative is its impact on outcomes. Specifically, everyone is interested in child outcomes that relate to school readiness. The question of impact, however, is not just limited to the assessment of child outcomes and how they are measured. Fundamental questions regarding the types of programs, the implementation of those programs, staffing issues, and how all of these factors influence outcomes must be considered as well.

This evaluation focuses on four specific areas of the First Steps experience: early education, child care (which includes quality enhancement programs and child care expansion), parenting and family strengthening (family skills and literacy programs), and the “value-add” of First Steps. Each of these four foci address issues critical to the future by providing insight into the experience and value of the South Carolina First Steps to School Readiness initiative. The first three represent 80% of all First Steps dollars spent in FY 2003. As will be detailed in the next section of this report, First Steps investments have been concentrated in these areas since the initiative’s inception. The fourth area of investigation, the added value of First Steps, focuses on a basic policy question: Does the strategy of investing in early childhood care and education programs through First Steps allow for efficiency, effectiveness, or innovation that otherwise might not have happened?

## **First Steps' Early Childhood Care and Education Investments**

First Steps is a community-driven effort. Counties determine their greatest needs and use First Steps funds to support or enhance the services or programs that will bolster the school readiness of its children. This process has resulted in varied strategies. Examples include improving quality through quality-enhancement grants, staff training and professional development, providing child care vouchers or scholarships to low-income families, expanding 4K classes from half day to full day, establishing new 4K classrooms, expanding Head Start programs, providing summer readiness programs to eligible children entering kindergarten in the fall, and improving parenting skills through programs such as Parents as Teachers (PAT), Parent-Child Home (PCH), and Even Start, as well as English as a Second Language (ESL) training and other family literacy models. Health strategies have included collaborating with local Department of Health and Environmental Control offices to provide expanded health home visitation programs, nutrition education, screenings, free prescriptions, free car seats, dental care, and technical assistance for parents and child care providers. Other strategies have included making programs mobile so as to bring to children and families services such as library programs and health services and attempting to increase public awareness regarding existing services and referral services (Child Trends, 2003b, exec. summary, pp. 17–19).

First Steps began initially serving children, their families, and their communities with state-allocated monies and a required 15% local county match. The first year's allocation was \$20 million. State funding for First Steps increased to \$30 million in fiscal year 2001 then gradually fell to about \$18 million in fiscal year 2005. Total state appropriations have totaled \$94,880,000 between 1999 and 2004. Because First Steps has garnered significant corporate and community support as well as federal funding (more than \$25 million), it has been able to decrease its reliance on state funds from 100% in 1999 to less than 72% in 2004 (South Carolina Office of First Steps, 2005a).

As would be expected, as funding has declined over the years, so have expenditures. Table 1 details total spending and spending by funding source for fiscal years 2002, 2003, 2004, and 2005. Over the past four years, total expenses declined 41%,

with spending of state allocated funds decreasing while spending of private donations of cash, services, and materials and federal grants have increased. Funding sources in the table include the following.

- *State Allocation*: Money appropriated by the state of South Carolina’s General Assembly to the Office of First Steps that is then dispersed to county-level First Steps offices.
- *State Private*: Gifts from private donors to the Office of First Steps that are then dispersed to county First Steps offices.
- *Cash Match (local private)*: Gifts from private donors given directly to county-level First Steps offices.
- *In-Kind (not cash)*: Services or materials donated directly to county-level First Steps offices.
- *Federal*: Federal grants that either go first to the Office of First Steps and are then dispersed to county-level First Steps offices or federal grants that are awarded directly to county-level offices.
- *Lottery*: Lottery funds appropriated by the state of South Carolina’s General Assembly to the Office of First Steps that are then dispersed to county-level First Steps offices.
- *Lottery Local Match*: Local, private cash donations used to match lottery funds.
- *Lottery Local In-Kind (not cash) Match*: Local in-kind donations of services or materials used to match lottery funds.
- *Lottery Federal Match*: Federal cash used to match lottery funds.

**Table 1. Total Expenses by Funding Source and Fiscal Year**

Funding Source	Total Spending (% of FY total)			
	FY 02	FY 03	FY 04	FY 05
State Allocation	\$30,532,306.29 (79.13%)	\$30,529,650.87 (73.25%)	\$15,899,135.25 (68.43%)	\$15,196,590.56 (66.64%)
State Private	\$411,495.86 (1.07%)	\$1,623,416.15 (3.90%)	\$841,438.09 (3.62%)	\$991,989.85 (4.35%)
Cash Match (local private)	\$62,522.61 (.16%)	\$568,424.96 (1.36%)	\$366,871.14 (1.58%)	\$301,138.99 (1.32%)
In-Kind Match	\$7,534,861.77 (19.53%)	\$7,689,277.54 (18.5%)	\$3,803,423.34 (16.37%)	\$3,594,074.16 (15.76%)
Federal Grants	\$43,917.20 (0.11%)	\$1,267,339.79 (3.04%)	\$2,324,805.43 (10.01%)	\$2,128,228.31 (9.33%)
Lottery Appropriations				\$226,712.98 (0.99%)
Lottery Local Private				\$238,819.16 (1.05%)
Lottery Local In-Kind				\$5,959.85 (0.03%)
Lottery Federal Match				\$121,202.75 (0.53%)
<b>Total FY Expenses</b>	<b>\$38,585,103.73</b>	<b>\$41,678,109.31</b>	<b>\$23,235,673.25</b>	<b>\$22,804,716.61</b>

**Source:** Fund Income and Expense Summary Report (All Funding Sources) for transactions recorded between July 1, 2001, and June 30, 2002; July 1, 2002, and June 30, 2003; July 1, 2003, and June 30, 2004; and July 1, 2004, and June 30, 2005.

Even though allocations and subsequent expenditures have both declined in the past four years, First Steps has consistently invested in several types of programs. Specifically, during its six years of operation, First Steps has invested over \$27 million dollars enhancing early education, over \$36 million strengthening parents and families, over \$8 million increasing access to and enhancing the quality of child care, and just over \$4 million providing health care and other services to children and families. Table 2 provides a full description of the amount of spending on specific program types by fiscal year. The first category in the table, administrative spending, includes the following three

line items from the annual First Steps Fund Income and Expense Summary Reports: pending strategy/plan approval, administrative functions, and programmatic functions.

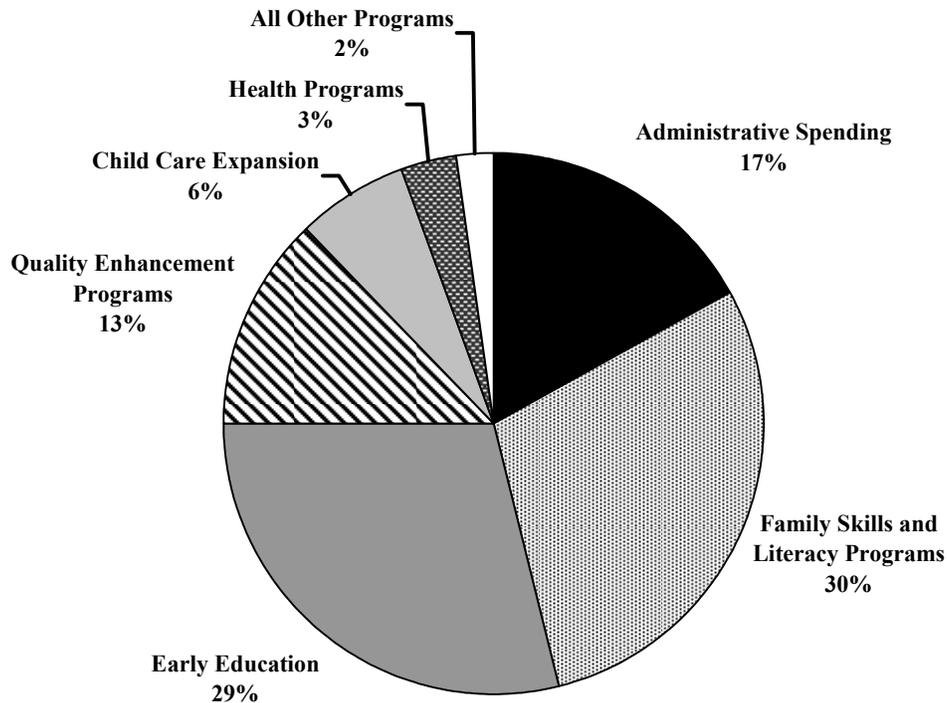
**Table 2. Total Expenses by Category and Fiscal Year**

Expense Category	Total Spending (% of FY total)			
	FY 2002	FY 2003	FY 2004	FY 2005
Administrative Spending	\$6,193,479.69 (16.05%)	\$5,738,817.10 (13.77%)	\$5,382,216.91 (23.16%)	\$4,194,252.58 (18.39%)
Parenting and Family Strengthening (family skills and literacy)	\$9,798,764.97 (25.40%)	\$11,761,773.78 (28.22%)	\$7,373,202.45 (31.73%)	\$7,955,720.14 (34.89%)
Early Education	\$13,905,301.98 (36.04%)	\$12,779,846.82 (30.66%)	\$4,801,784.92 (20.67%)	\$4,776,689.41 (20.95%)
Transportation Programs	\$53,801.46 (0.14%)	\$35,709.03 (0.09%)	\$15,845.79 (0.07%)	\$12,110.80 (0.05%)
Quality Enhancement Program	\$5,160,248.40 (13.37%)	\$4,908,504.15 (11.78%)	\$2,707,214.95 (11.65%)	\$3,598,461.18 (15.78%)
Child Care Expansion	\$1,449,574.78 (3.76%)	\$3,459,675.66 (8.30%)	\$1,691,607.90 (7.28%)	\$1,549,472.56 (6.79%)
Health Programs	\$922,969.82 (2.39%)	\$1,421,584.15 (3.41%)	\$1,218,647.68 (5.24%)	\$670,910.85 (2.94%)
All Other Programs	\$1,100,962.63 (2.85%)	\$1,572,198.62 (3.77%)	\$45,152.65 (0.19%)	\$47,099.09 (0.21%)
Fiscal Year Total (all categories)	\$38,585,103.73	\$41,678,109.31	\$23,235,673.25	\$22,804,716.61

**Source:** Fund Income and Expense Summary Report (All Funding Sources) for transactions recorded between July 1, 2001, and June 30, 2002; July 1, 2002, and June 30, 2003; July 1, 2003, and June 30, 2004; and July 1, 2004, and June 30, 2005.

Over time, First Steps has maintained its commitment to quality enhancement programs, child care expansion, and health programs with steady funding levels. Its investment in family skills and literacy programs have increased. Even though spending on early education has declined, it remains the second largest First Steps investment. Spending on transportation and other programs (e.g., public awareness campaigns) have steadily declined. Figure 1 aggregates all of the data in Table 2. It depicts the types and total size of First Steps investments from July 1, 2001, through June 30, 2005. In the figure, transportation programs, which make up less than 1% of all spending is included in the category “All Other Programs.”

**Figure 1. Combined Total Expenses by Category for Fiscal Years 2002–2005**



The consistent investment over time in programs and services targeting parents, preschool, and child care are a direct reflection of county needs assessments. South Carolina suffers from above-average poverty compared to other states. According to Kids Count data from 2004, 23% of the state's children live in poverty, compared to 18% nationwide. The median family income for families with children in South Carolina is \$43,000 compared to \$50,050 nationwide. In addition, 35% of the state's children live in families where no parent has full-time, year-round employment (Annie E. Casey Foundation, 2004). Just over half the state's students are eligible for free or reduced-price lunches, the seventh highest percentage among states nationwide (University of South Carolina, 2005). Both South Carolina's infant mortality rate and incidence of low birth weight babies are higher than the national average. Infant mortality is 9.3 per 1,000 births in the state compared to 7.8 per 1,000 births nationwide. In addition, 10% of children are born with low birth weight compared to 7.8% nationwide (Annie E. Casey Foundation, 2004).

South Carolina has some of the poorest student achievement statistics in the country. The state ranked 41 out of 50 states in performance on the National Assessment of Educational Progress (NAEP) fourth-grade reading test and 32 out of 50 on the NAEP fourth-grade math test. In terms of average SAT scores, the state ranked last among the states with an average score of 993 out of 1600 (University of South Carolina, 2005). The state's literacy rate is also quite low, with 25% of adults falling into the lowest of five literacy levels and 56% falling into the lowest two literacy levels, according to 1998 estimates from the National Institute for Literacy (Redder, 1998).

In 2004, 38% of South Carolina children lived in single-parent households, with 31% living with their mothers and 7% living with their fathers. Nationwide, 30% of children lived in single-parent households that year, 24% with their mothers and 6% with their fathers. Also in 2004, 7% of South Carolina children lived in households where grandparents served as caregivers, compared to 4% nationwide. (Annie E. Casey Foundation, 2004). The proportion of children living in households where the household head dropped out of high school is 16% compared to 17% nationwide (Annie E. Casey Foundation, 2004).

In 2004, there were 1,631 licensed child care centers and 1,947 licensed family child care homes in South Carolina (National Child Care Information Center, 2004). Of the child care centers, only 132 (less than 1%) were accredited based on high quality standards established by the National Association for the Education of Young Children (NAEYC). Clearly, First Steps investments in supporting children and families at risk and improving the quality of available services are well-warranted.

## What is School Readiness?

School readiness is at the foundation of the mission and purpose of the First Steps initiative. Before considering in-depth the findings of this evaluation on the impact of First Steps-funded programs on children’s school readiness, it is essential to establish a working definition of the concept. School readiness is a complex and multidimensional construct that is influenced by many early childhood experiences. In this evaluation, school readiness is defined using the guidelines developed by the National Education Goals Panel (NEGP) (Kagan, Moore, & Bredekamp, 1995). They are the current standards generally accepted by the early childhood community. The NEGP identified five dimensions of children’s development and learning that are important for school success:

- Physical well-being and motor development
- Social and emotional development
- Approaches toward learning
- Language development and communication
- Cognition and general knowledge

These five dimensions are intrinsically interrelated. They are dependant upon each other, and development in one area will effect development in others. Inherent in this perspective is the belief that there is no single or uniform “standard” of readiness. Children’s development is variable at age five; thus, no child will demonstrate all necessary skills in every area. The goal is for children to develop competencies across all five domains. No one dimension is more important than another. The objective is to provide experiences, programs, and policies that support all of these areas to nurture young children.

## **Physical Well-Being and Motor Development**

Health and physical development is an important readiness dimension because a strong body of research links maternal and child health to performance in school. Low-birth weight, poor nutrition, and inadequate health care, among many other health issues, may have long-term effects on a child's readiness for school. Early identification and intervention are critical for children with disabilities. Readiness in this area is enhanced when children enter school having had the opportunity to develop age-appropriate large and small motor skills such as balance, coordination, strength, and grasping. A variety of experiences such as running, jumping, climbing, writing, drawing, and interacting with small manipulatives such as Legos and blocks enable children to develop these skills (Kagan, Moore, & Bredekamp, 1995; North Carolina School Improvement Panel, 2000).

## **Social and Emotional Development**

Social and emotional development is an important readiness domain because it addresses the emotional well-being and social skills necessary for relationships with adults and children. Children need to be able to develop close relationships, identify and express feelings in age-appropriate manners, understand the feelings of others, respect the property of others, and deal with conflict in positive and resourceful manners. Self-confidence, independence, separation from parents, having the ability to follow rules and adapt to changes, participation in group activities, and being able to play cooperatively with others are also important readiness skills that develop over time. Children entering school obviously exhibit a great range of socio-emotional skills and abilities influenced by their previous experiences and by the cultural expectations they were raised with (Kagan, Moore, & Bredekamp, 1995; North Carolina School Improvement Panel, 2000).

## **Approaches Toward Learning**

This dimension is complicated because indicators that a child is functioning well in this area are hard to describe, difficult to define, and not easy to observe. Curiosity, creativity, confidence, independence, initiative, and persistence are all terms that describe appropriate early approaches toward learning. These are inclinations, dispositions, or

styles rather than skills. Approaches to learning vary greatly both within and between families, communities, and cultures; therefore, a uniform approach to evaluation in an early childhood education setting may not be possible. Readiness in this area is enhanced when children have had experiences where they have been encouraged to learn, ask questions, and explore and discover using their creativity and imagination through movement, music, dramatic play, and art (Kagan, Moore, & Bredekamp, 1995; North Carolina School Improvement Panel, 2000).

### **Language Development and Communication**

Language development and communication is clearly an important component of school readiness. Language development is more than just developing the ability to read. It is through language that children communicate needs, describe events, interact with others, and express their thoughts and feelings. Language gives children the ability to take part in both the cognitive and affective components of school. Readiness in this area is enhanced when children have been exposed to a variety of language experiences such as print (being read to and reading to others), communication (being asked questions and generating appropriate responses), having the opportunity to develop listening skills, to convey meaning on paper (through drawing and writing), and to use language creatively (playing with rhymes and writing and illustrating stories) (Kagan, Moore, & Bredekamp, 1995; North Carolina School Improvement Panel, 2000).

### **Cognition and General Knowledge**

Cognition and general knowledge are important for school readiness because it is the foundation upon which children will develop later academic skills. What basic knowledge children have when they enter school such as their name, knowledge of colors, and their awareness of self, family, and community are all important foundations for future learning. Upon school entry, most children have many cognitive concepts already developed such as simple science concepts (living and nonliving), problem-solving skills, basic mathematical skills (time, distance, speed, and size), and language skills (see above). Readiness in this dimension is enhanced when children are provided with play-oriented, exploratory activities that allow children to interact with adults in rich

learning environments in developmentally appropriate manners. From these interactions children come to understand patterns and relationships, cause and effect, and problem-solving skills in their later educational experiences (Kagan, Moore, & Bredekamp, 1995; North Carolina School Improvement Panel, 2000).

It is very important to understand the dimensions of readiness before considering how to assess young children's readiness for school. Specifically, as described above, readiness is not a single dimension or a single standard of learning and development. Individual child performance is multidimensional, highly variable across the domains, episodic, and culturally and contextually influenced (Kagan, Moore, & Bredekamp, 1995). Therefore, the idea of a single readiness dimension is misleading and dangerous. There currently exist a variety of tools available to measure the cognitive and socio-emotional progress of young children. These instruments go by many names, such as developmental screening instruments, readiness tests, and achievement tests.

It is important to understand that there are many problems that exist with the use of many of these instruments. Problems can range from issues related to the tests themselves (such as the validity and reliability of the instruments) to the methods of administration (e.g., required individual administration, fill-in-the-bubble difficulties, training of teachers). Reliability and validity are important when considering readiness assessments because scores on these tests contain an implicit prediction of school success or failure. Because children acquire different skills at different rates and in different ways, no readiness tests have been able to be developed which have acceptable predictive ability (Meisels, 1998). The challenge for any such instrument is to reliably assess young children within such an enormous range of normal growth and development.

There are two distinct purposes for readiness assessment: accountability and instruction. Assessing for accountability allows communities, policymakers, and programs to determine the influence of early experiences on children's preparedness for school. Assessing for instruction enables teachers to plan classroom activities to meet both whole group and individual needs. However, readiness assessment should not be used to make (or help make) school entry decisions. All children who meet the legal age requirement are eligible to attend school. An important distinction also needs to be made between readiness assessment and developmental screening. These terms are often used

interchangeably; however they are distinct tools with distinct purposes. The purpose of developmental screening is to identify children with potential developmental delays and disabilities. Screening tools are not the appropriate instruments to be used for accountability or for instructional planning (NEGP, 1998).

Because of the difficulties associated with readiness assessment, professionals in the early childhood community have developed approaches to the readiness assessment of young children through the use of authentic assessments. Authentic assessments are tools that provide information for instruction and planning by collecting information about children's abilities over time, by adults familiar with the child, in naturally occurring settings. The South Carolina Readiness Assessment (SCRA) is based upon a fully and well-developed authentic assessment—the Work Sampling System (WSS) (Meisels, Jablon, Marsden, Dichtelmiller, & Dorfman, 2001). The SCRA and similar authentic assessments have standardized procedures and, if done appropriately by trained teachers, can provide valid and reliable data. Many are concerned, however, by the potential of these instruments to be “subjective.” With appropriate training and support of teachers, that subjectivity can be greatly decreased (Meisels, DiPrima-Bicket, Nichols, Xue, & Atkins-Burnett, 2001). Additionally, because of the great variability in the development of young children, that subjectivity can in fact be a valuable aspect of these types of tools. This evaluation uses a variety of measures in an effort to describe the readiness of children who have participated in First Steps initiatives.

# Early Education

## Introduction

Increased access to high-quality early education is at the heart of the First Steps initiative. In Section 59-152-30, the First Steps to School Readiness Act stated as one of its goals to “promote high quality preschool programs that provide a healthy environment that will promote normal growth and development” with particular emphasis on “school readiness” and “quality cognitive learning.”

Consistent research findings have shown that young children are capable learners and that their linguistic, mathematical, and other readiness skills are influenced and improved by their educational and developmental experiences during the early years. A number of studies have identified that participation in quality early childhood programs have been consistently associated with increased levels of cognitive development, school achievement, motivation, and lower rates of grade retention and special education placement (e.g., see Peisner-Feinberg, et al, 1999). In particular, research that has focused on children growing up in poverty has found that quality early childhood experiences produce both short-term and long-term effects for individuals and society (e.g., Schweinhart, et al, 2005). Programs that are able to produce long-term effects have a number of common factors. These include the following:

- Curriculum content and classroom methods that cultivate school-related skills and knowledge
- Classrooms with a heavy focus on language development
- Highly qualified teaching staff
- Small class sizes and low teacher-child ratios
- Intense and coherent programming
- Collaborative relationships with parents

## Evaluation Questions

As detailed earlier in this report, throughout its existence, on average 29% of First Steps spending has been on supporting and expanding early education. Strategies used include expanding four-year-old kindergarten (4K) from half day to full day, adding new classrooms, expanding Head Start, and developing summer readiness programs. As documented in the 2003 evaluation, in the first few years of First Steps, these early education investments resulted in expanded capacity for 4K, the apparent use of developmentally appropriate curricula in classrooms, and high parent satisfaction in the programs.

The 2003 evaluation also described challenges to First Steps in the area of early education, and these included the development of more training and professional development opportunities for teachers and assistant teachers; the design and implementation of appropriate measurement methods to assess the skills and abilities that First Steps-funded early education initiatives are developing in young children; and the potential implementation of a variation study to look at the effectiveness of different programs that exist across the state, particularly taking into account factors such as length, curriculum, and timing of programs.

Investigating how over the past several years First Steps has addressed all these challenges was beyond the fiscal constraints and time frame allotted to this evaluation. Nevertheless, this evaluation attempted to keep these ideas in mind. The evaluation questions reported on here focus on the connection between quality and outcomes. That is, statements about the relationship between participation in First Steps-funded early education programs and child outcomes must be considered in the context of what is known about developmentally appropriate, high quality practice. As a result, the questions focus on two areas: early education program characteristics, particularly 4K, and outcomes for participants in early education programs.

The evaluation questions related to the First Steps early education programmatic components are as follows:

1. What are the descriptive characteristics of teachers who teach in First Steps-funded 4K classrooms?
2. What are the curricular models implemented in First Steps-funded 4K programs, and what is their level of fidelity of curricular implementation?
3. What is the quality of First Steps-funded 4K programs?

The goal of asking these questions is to address several of the issues raised by what is known about effective programs for children growing up in poverty. The evaluation questions related to the participants in early education programs are as follows:

4. What are the descriptive characteristics of children who participate in First Steps-funded classrooms?
5. What are the short- and long-term outcomes for children who participate in First Steps 4K-funded programs in areas such as retention, special education placement, SCRA evaluations in kindergarten and first grade, second grade Iowa Test of Basic Skills (ITBS) scores, and Palmetto Achievement Challenge Test (PACT) scores in third grade?
6. Is there a significant difference in outcomes for First Steps children who participate in half- versus full-day 4K?

These questions address whether First Steps funding has been able to target those children most in need of services and whether those services have been able to improve outcomes for participating children. The first two participant questions were developed at the beginning of the evaluation process. The last question developed during the course of the evaluation due to an interest within the First Steps community regarding the impact of half- versus full-day 4K.

## **Methods**

High/Scope planned to review annual Program Evaluation Reports (PERs) provided by participating counties to ascertain initial descriptions of teacher qualifications for both teachers and assistant teachers employed in First Steps-funded

classrooms. Initial reviews were to then be analyzed against the teacher certification database provided by the South Carolina Department of Education (DOE) and the South Carolina data warehouse housed at the Office of Research and Statistics, South Carolina Budget Control Board..

Information about curricular models and implementation fidelity were to be gathered in several ways. Using available information (i.e., PERs, First Steps data system, South Carolina data warehouse, and DOE databases), we planned to determine which programs were using which curricular models. Classrooms identified as High/Scope were randomly selected to be evaluated for curricular fidelity using the High/Scope Program Quality Assessment (PQA) and classrooms identified as using the Creative Curriculum were randomly selected to be evaluated using the Creative Curriculum Implementation Checklist (CCIC). Classroom quality in First Steps funded 4Ks was to be evaluated using the Early Childhood Environment Rating Scale (ECERS).

The participant-level questions were developed with the understanding that pre-existing data as well as new data collection would contribute to the answers. Existing data sources were to include the First Steps data systems, the South Carolina data warehouse, the PERs provided by participating counties, the State DOE databases (which were to include the PRECODE, Early Education ATOM, and the Iowa Test of Basic Skills (ITBS)), as well as the SCRA and PACT databases. The SCRA database was to include evaluations in kindergarten and first grade. The second-grade ITBS scores, 4K Developmental Indicators for the Assessment of Learning, Third Edition (DIAL-3) evaluations, and PACT scores in third grade were also to be provided. Information gathered from these databases would be compared against state and (when appropriate) national averages.

Additional outcome data was to be made available to High/Scope by the National Institute for Early Education Research (NIEER) at Rutgers. South Carolina participated during the fall of 2004 in a multistate evaluation of state-funded preschool. NIEER sampled 422 children currently enrolled in 4K and 355 kindergarten children with previous preschool experience. For the NIEER design, children were tested at the very beginning of the school year to increase the likelihood that any differences in child assessment data between the two groups were the result of the preschool experience. For

this evaluation, the NIEER preschool children were assessed a second time in the spring of 2005 to examine short-term effects of preschool participation.

### Data Problems

During the data collection phase, High/Scope worked with the Office of Research and Statistics (ORS) to obtain all data described in the original plan<sup>2</sup>. The following problems arose:

1. Individuals within the DOE were initially reluctant to share data. This resulted in time delays that impacted High/Scope's ability to analyze and clarify data and to potentially look for alternative methods of answering research questions.
2. Resistance arose from school districts that were reluctant to allow researchers into classrooms to conduct observations. In some instances, teachers were allowed to opt out of evaluation by their principals or districts; in other situations, evaluators were turned away upon arrival. By the time permission was obtained to conduct PQA and CCIC data collection, it was late in the school year and a sufficient number of observations that would allow for extensive analysis could not be completed.
3. Some of the data collected by the DOE that was provided to High/Scope by ORS was unusable. Specific problems that existed within the data were of several types and included the following:
  - During the first two years of First Steps program implementation 2000–2002, First Steps children were not

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<sup>2</sup> High/Scope presented to the First Steps Board of Trustees a comprehensive plan for the 2006 evaluation. The Board considered and approved that plan in October of 2004. Throughout this report, any deviations from that plan are noted and explained.

identified in DOE or First Steps databases or data that was collected was incomplete. Therefore, analysis specific to First Steps could not be conducted for those years.

- Due to rules and regulations regarding privacy and proprietary issues within ORS, High/Scope was not able to verify the methods used to create the databases provided to it nor were we able to verify the accuracy of the databases provided.
- First Steps databases, collected by the ORS, have serious missing data problems. Counties have only been required to provide complete records on 50% of their clients. This policy, combined with methods used by the ORS to create unique identification numbers, resulted in uncertainty regarding the exact number of First Steps clients. This raises serious concerns regarding whether databases provided are representative of all First Steps clients and whether results can be generalized. Analysis specific to First Steps clients must be interpreted with caution.
- DIAL-3 data collected by the DOE does not contain the date of evaluation. Without this information it is impossible to properly calculate child age at date of testing and their scores, and to report results. As a result, this data could not be used.
- ITBS data was missing significant amounts of data, making it unreliable. For the two years of data available, 46% and 55% of the language totals and 62% and 78% of the math totals were missing. This data was not used.
- Due to incomplete Early ATOM databases, limitations on how data has been collected over the years, and inconsistent tracking of First Steps funding, there was no way to clearly identify all First Steps-funded 4K teachers. Thus, complete information on the characteristics and qualifications of those teachers are not reported here.

4. NIEER data collection was planned to include an oversampling of First Steps children and classrooms to allow for specific analyses related to First Steps. The evaluation ended up only assessing 28 children from seven First Steps-funded classrooms, thus limiting the ability to make any generalizations specific to First Steps.
5. The type, quantity, and quality of information provided by the PERs across counties and reporting years was inconsistent. There was no systematic way to organize the information and that which could be organized was often not of sufficient detail or accuracy.

As prescribed by the Office of First Steps, this evaluation was to be primarily based upon analysis of existing data collected by various government agencies across the state. High/Scope introduced into the design additional data collection. All of that new data collection required the cooperation of several government agencies. The data problems listed above had serious consequences for this part of the evaluation. In particular, the programmatic evaluation questions listed above could not be answered fully and the connection between child outcomes data and First Steps investments could only be pursued in a limited way.

### Sample

The sample reported on here consists of four cohorts of children. Each cohort is a data set of all children who attended kindergarten during that school year. For ease of understanding and clarity, kindergarten cohorts are the point of reference in all descriptions and analyses. It should be noted, however, that First Steps participation occurred at some point prior to kindergarten entry. During the first two years of First Steps program implementation 2000–2002 (which are kindergarten cohorts 1 [2001–2002] and 2 [2002–2003]), First Steps children were not identified in DOE or First Steps databases, or data that was collected was incomplete. Therefore, analysis specific to First Steps could not be conducted for these cohorts. During the 2003–2004 (cohort 3) and

2004-2005 (cohort 4) school years, using a combination of First Steps and the DOE database, First Steps children were identified and, when sufficient sample sizes existed, First Steps-specific analyses were completed for these cohorts of children. Table 3 highlights the initial sample size provided by ORS, the sample size used for evaluation purposes (children who were retained at kindergarten and children who were younger than 58 months or older than 73 months were excluded), and the number of children who were identified as having First Steps funding.

**Table 3. Cohort Sample Sizes**

	Cohort 1 (2001-2002)	Cohort 2 (2002-2003)	Cohort 3 (2003-2004)	Cohort 4 (2004-2005)
Sample Size of Data Received from ORS	46,640	48,328	49,839	51,308
Sample Size Used	43,859	45,348	46,987	48,203
Number of Children Identified with First Steps Funding	Not Collected	Incomplete	3,144	1,676

Table 4 indicates child characteristics (or risk indicators) by 4K enrollment and cohort. It identifies a child's 4K experience, no 4K, half-day or full-day 4K enrollment, as well as the characteristics described (and controlled for in analyses) including the percentages of children who were non-White, had received food stamps, Medicaid, or Temporary Assistance for Needy Families (TANF), had been placed in foster care, were eligible for free or reduced lunch, had received special needs placement in kindergarten, and who were low birth weight. The table also indicates the mean level of the mother's education.

**Table 4. Child Characteristics by Program Type for All Cohorts**

Child Characteristics	Program Type	Cohort 1 (2001-02)	Cohort 2 (2002-03)	Cohort 3 (2003-04)	Cohort 4 (2004-05)
Non-White (%)	No 4K	40	41	41	41
	Half-day 4K	50	45	45	45
	Full-day 4K	67	67	62	65
	Statistical sig.	**	**	**	**
Food Stamps (%)	No 4K	37	37	37	34
	Half-day 4K	46	42	41	43
	Full-day 4K	54	54	51	51
	Statistical sig.	**	**	**	**
Medicaid (%)	No 4K	50	50	50	47
	Half-day 4K	63	60	60	63
	Full-day 4K	72	73	71	71
	Statistical sig.	**	**	**	**
TANF (%)	No 4K	13	13	11	9
	Half-day 4K	14	11	10	10
	Full-day 4K	16	15	13	12
	Statistical sig.	**	**	**	**
Foster Care (%)	No 4K	1	1	1	0
	Half-day 4K	1	1	1	1
	Full-day 4K	1	1	1	1
	Statistical sig.	—	—	—	—
Free Lunch Index (mean) (0=no,1=reduced, 2=free)	No 4K	0.92	0.92	0.93	.90
	Half-day 4K	1.12	1.04	1.02	1.04
	Full-day 4K	1.42	1.44	1.37	1.41
	Statistical sig.	**	**	**	**
Mother's Education (mean years)	No 4K	12.53	12.59	12.62	12.74
	Half-day 4K	12.01	12.16	12.09	12.09
	Full-day 4K	11.90	11.96	11.95	12.02
	Statistical sig.	**	**	**	**
Special Need Placement at Kindergarten (%)	No 4K	11	11	11	10
	Half-day 4K	20	18	18	19
	Full-day 4K	18	19	19	18
	Statistical sig.	**	**	**	**

*(continued)*

**Table 4. Child Characteristics by Program Type for All Cohorts (continued)**

Child Characteristics	Program Type	Cohort 1 (2001-02)	Cohort 2 (2002-03)	Cohort 3 (2003-04)	Cohort 4 (2004-05)
Low Birth Weight (%)	No 4K	9	8	9	9
	Half-day 4K	9	9	9	10
	Full-day 4K	11	10	10	11
	Statistical sig.	**	**	†	**

*Note.* For the no 4K group: cohort 1  $n = 28389$ , cohort 2  $n = 28219$ , cohort 3  $n = 28891$ , and cohort 4  $n = 30643$ ; For the half-day 4K group: cohort 1  $n = 11129$ , cohort 2  $n = 8759$ , cohort 3  $n = 8206$ , and cohort 4  $n = 8541$ ; For the full-day 4K group: cohort 1  $n = 2732$ , cohort 2  $n = 5960$ , cohort 3  $n = 8556$ , and cohort 4  $n = 7589$ . \*\*:  $p < .01$ ; †:  $.05 < p < .10$ ; —:  $p > .10$ .

For all the cohorts there were differences between those children who had and had not experienced 4K. In general, children who had attended 4K children were more likely to be minorities and to have received food stamps, Medicaid, and TANF at greater rates than those who had not attended early education. They also were more likely to have been eligible for free and reduced lunch, had special needs placement in kindergarten, and to have been born with a low birth weight. The 4K mothers also had significantly less education than the no-4K mothers.

Full-day children were significantly more likely to be minorities and to have received food stamps, Medicaid, and TANF at greater rates than half-day 4K and children who had not attended early education. They had significantly higher rates of eligibility for free and reduced lunch. They also had higher rates of low birth weight. Full-day 4K mothers had significantly less education than the other groups. In every category except foster care placement and special needs placement at kindergarten, full-day children were likely to be poorer and to have greater levels of identified risk factors compared to half-day and no-4K children. Similarly, half-day children were more likely to be poorer and to have greater levels of identified risk factors than no-4K children. Full-day is comprised of children at greater risk than half-day, and half-day is comprised of children at greater risk than no-4K.

It was within cohorts 3 and 4 that there was the possibility of identifying children who had benefited from First Steps funding. Children who attended 4K and were identified as having benefited from First Steps funding in cohort 3 numbered 2,762 while in cohort 4 there were 1225. There were 382 in cohort 3 and 451 in cohort 4 who

received First Steps funds for other types of First Steps initiatives but did not attend 4K. Table 5 compares First Steps-funded children in cohorts 3 and 4 to all other non First Steps children in the same cohorts. Characteristics described (and controlled for in analyses) included the percentages of children who were non-White, had received food stamps, Medicaid, or TANF, had been placed in foster care, were eligible for free or reduced lunch, had received special needs placement in kindergarten, and who were low-birth weight. The table also indicates the mean level of the mother's education.

There were significant differences between those children who were part of the First Steps initiative and those who were not. Children who were part of First Steps were more likely to have been minorities and to have received food stamps. They were also significantly more likely than non-First Steps-funded children to have received Medicaid and TANF and to have been eligible for free and reduced lunch. First Steps mothers also had significantly less education than non-First Steps mothers. Overall, First Steps children were poorer and more at risk than their non-First Steps counterparts. However, children who received First Steps funding for services without 4K were poorer and at greater risk than First Steps-funded children with 4K.

**Table 5. Child Characteristics by Program Type and First Steps Funding Status for Cohorts 3 and 4**

Child Characteristics	Funding Status	Cohort 3 (2003–2004)	Cohort 4 (2004–2005)
Non-White (%)	No 4K	41	41
	Non-FS 4K	53	55
	FS-funded with 4K	56	54
	FS-funded without 4K	59	73
	Statistical Significance	**	**
Food Stamps (%)	No 4K	37	34
	Non-FS 4K	45	46
	FS-funded with 4K	50	53
	FS-funded without 4K	60	61
	Statistical Significance	**	**
Medicaid (%)	No 4K	50	47
	Non-FS 4K	65	66
	FS-funded with 4K	70	74
	FS-funded without 4K	75	80
	Statistical Significance	**	**

*(continued)*

**Table 5. Child Characteristics by Program Type and First Steps Funding Status for Cohorts 3 and 4 (continued)**

Child Characteristics	Funding Status	Cohort 3 (2003–2004)	Cohort 4 (2004–2005)
TANF (%)	No 4K	11	9
	Non-FS 4K	12	10
	FS-funded with 4K	13	13
	FS-funded without 4K	19	16
	Statistical Significance	**	**
Foster Care (%)	No 4K	0.7	0.3
	Non-FS 4K	0.7	0.5
	FS-funded with 4K	1.0	0.7
	FS-funded without 4K	1.3	0.7
	Statistical Significance	—	†
Free Lunch Index (mean) (0 = no, 1 = reduced, 2 = free)	No 4K	0.92	.89
	Non-FS 4K	1.17	1.20
	FS-funded with 4K	1.31	1.35
	FS-funded without 4K	1.45	1.51
	Statistical Significance	**	**
Mother's Education (mean years)	No 4K	12.63	12.76
	Non-FS funded 4K	12.08	12.09
	FS-funded 4K	11.85	11.68
	FS-funded but no 4K	11.67	11.52
	Statistical Significance	**	**
Special Need Placement at Kindergarten (%)	No 4K	11	10
	Non-FS funded 4K	20	19
	FS-funded 4K	20	22
	FS-funded but no 4K	18	11
	Statistical Significance	**	**
Low Birth Weight (%)	No 4K	9.1	9.0
	Non-FS funded 4K	9.9	10.7
	FS-funded 4K	10.2	9.5
	FS-funded but no 4K	10.9	13.1
	Statistical Significance	*	**

**Note.** For cohort 3:  $n = 28,509$  for no 4K group;  $n = 15,334$  for non-FS 4K group;  $n = 2,762$  for FS funded with 4K; and  $n = 382$  for FS-funded without 4K group. For cohort 4:  $n = 30,192$  for no 4K group;  $n = 16,335$  for non-FS 4K group;  $n = 1,225$  for FS-funded with 4K group; and  $n = 451$  for FS-funded without 4K group. \*\*:  $p < .01$ ; \* $p < .05$ ; †:  $.05 > p > .10$ .

Table 6 provides descriptive statistics for First Steps-funded children in cohorts 3 and 4 by their type of 4K enrollment. Analysis indicated that First Step children who were enrolled in full-day versus half-day 4K were more likely to have been minority and

received food stamps, Medicaid, and TANF at greater percentages than their half-day peers. They were also more likely to have been eligible for free and reduced lunch.

**Table 6. Characteristics by Program Type for First Steps-Funded Children**

Child Characteristics	FS Type	Cohort 3 (2003–2004)	Cohort 4 (2004–2005)
Non-White (%)	No 4K	59	73
	Half-day	44	48
	Full-day	59	57
	Statistical significance	**	**
Food Stamps (%)	No 4K	60	61
	Half-day	48	50
	Full-day	51	55
	Statistical significance	**	**
Medicaid (%)	No 4K	75	80
	Half-day	68	71
	Full-day	71	76
	Statistical significance	**	**
TANF (%)	No 4K	18.5	16.4
	Half-day	12.8	12.1
	Full-day	13.6	13.6
	Statistical significance	*	†
Foster Care (%)	No 4K	1.3	0.7
	Half-day	1.3	0.8
	Full-day	1.0	0.5
	Statistical significance	—	—
Free Lunch Index (mean) (0 = no, 1 = reduced, 2 = free)	No 4K	1.44	1.51
	Half-day	1.18	1.16
	Full-day	1.35	1.49
	Statistical significance	**	**
Mother's Education (mean years)	No 4K	11.67	11.52
	Half-day	11.70	11.62
	Full-day	11.89	11.75
	Statistical significance	†	—
Special Need Placement at Kindergarten (%)	No 4K	18	11
	Half-day	19	23
	Full day	20	21
	Statistical significance	—	**
Low Birth Weight (%)	No 4K	10.9	13.1
	Half-day	9.2	10.0
	Full-day	10.1	9.5
	Statistical significance	—	—

*Note.* For cohort 3 and 4:  $n = 382$  and  $451$  for No 4K group,  $n = 626$  and  $504$  for half-day group,  $n = 2092$  and  $655$  for full-day group \*\* :  $p < .01$ ; \* :  $p < .05$ ; † :  $.05 < p < .10$ ; — :  $p > .10$ .

## Findings

Two categories of findings are presented here. First, program-level data and findings are described. Second, the balance of this chapter is devoted to describing and reporting on the child-level analyses that were conducted.

### Teacher Qualifications

Table 7 shows descriptive traits for 983 teachers who taught in 4K classrooms during the 2004–2005 school year. On average, 4K teachers were 42 years old, 83% were White, 10% were Black, and less than 1% were Hispanic. They were overwhelmingly female (95%), and the majority (51%) had master’s degrees. Sixty-five percent were certified in early childhood education. Among teachers in First Steps-funded 4K classrooms, a review of 2005 PERs indicated that 100% of teachers had a bachelor’s degree or higher and were certified in early education. First Steps-funded 4K classrooms are contractually bound to have a teacher with early education certification.

**Table 7. 2004–2005 4K Teacher Characteristics**

Characteristics	<i>N</i>	%
Ethnicity		
Black/African-American	100.00	10.00
Hispanic	3.00	0.30
White	809.00	83.00
Other/Unknown	69.00	7.00
Gender		
Male	49.00	5.00
Female	933.00	95.00
Education		
Bachelor Degree	473.00	48.00
Masters Degree	506.00	51.00
Doctorate	4.00	0.01
Age (mean)	41.89	
Early Childhood Certification	635.00	65.00

**Source:** Department of Education Teacher Certification Database.

### Curriculum Implementation and Classroom Quality

There are four preschool curricula approved for use by the South Carolina DOE. These are High/Scope, Creative Curriculum, Montessori, and Reggio Emilio. The two most widely used curricula are High/Scope and Creative Curriculum. Across the state, 83 programs reported using Creative Curriculum and 249 reported using High/Scope. A total of 29 High/Scope classrooms and 13 Creative Curriculum classrooms were assessed. Only 5 of each of the High/Scope and Creative Curriculum classrooms observed were First Steps-funded. PQA data was collected by trained High/Scope field consultants, and a University of North Carolina, Charlotte, graduate student well-versed in the CCIC observed the Creative Curriculum classrooms.

The PQA was used to evaluate four areas: learning environment, daily routine, adult-child interactions, and curriculum and assessment. In general, an average score of 1 indicates a poor-quality classroom, 3 an average classroom, and 4 or above a high-quality classroom. When the PQA is used as a measure of fidelity, a total score of 4.5 with no single item scored below a 4.0 is the standard used for High/Scope certification. Table 8 describes the High/Scope classrooms' PQA scores. The scores indicate that these are average classrooms with regard to both their curriculum fidelity and quality. Their overall score indicates a slightly higher (though not significant) level of fidelity and quality in First Steps-funded 4K classrooms.

There were 13 Creative Curriculum classrooms that were able to be evaluated for implementation fidelity. Table 9 indicates the mean scores for each of the four evaluation scales in the instrument. These include physical environment, structure, teacher-child interactions, assessment, and a general overall score. There were no significant differences between the First Steps and non-First Steps scores.

**Table 8. High/Scope Program Quality Assessment (PQA) Scores**

Curricular Area	Mean Score	Std. Dev.	Range
Learning Environment			
First Steps	3.33	.64	2.56–4.33
Non-First Steps	3.41	.80	1.78–4.56
Daily Routine			
First Steps	3.80	.75	3.0–4.67
Non-First Steps	3.22	.87	1.75–4.90
Adult-Child Interaction			
First Steps	3.92	.78	2.78–4.86
Non-First Steps	3.64	.87	1.5–4.88
Curriculum & Assessment			
First Steps	3.52	.76	2.6–4.60
Non-First Steps	3.53	.84	1.6–4.80
PQA Total Score			
First Steps	3.64	.65	2.87–4.61
Non-First Steps	3.45	.68	2.12–4.53

*Note:* First Steps,  $n = 5$ ; Non-First Steps,  $n = 23$ .

**Table 9. Creative Curriculum Implementation Checklist Scores**

Curricular Area	Mean Score	Std. Dev.	Range
Physical Environment			
First Steps	60.80	10.89	48–77
Non-First Steps	62.62	15.14	44–86
Structure			
First Steps	18.00	1.58	16–20
Non-First Steps	19.87	3.13	16–24
Teacher-Child Interactions			
First Steps	31.20	3.42	26–35
Non-First Steps	32.25	5.30	27–40
Assessment			
First Steps	3.80	1.78	3–7
Non-First Steps	4.75	2.71	0–10
CCIC Total Score			
First Steps	117.0	13.2	107–137
Non-First Steps	124.1	24.1	91–161

*Note:* First Steps,  $n = 5$ ; Non-First Steps,  $n = 8$ .

Classroom quality in 4K and specifically in First Steps-funded classrooms was determined using data provided by the DOE and First Steps. Classroom quality was evaluated using the Early Childhood Environment Rating Scale (ECERS). The ECERS evaluates quality in seven areas—Space and Furnishings, Personal Care Routines, Language-Reasoning, Activities, Interaction, Program Structure, Parents and Staff—as well as an overall score. Items are presented in a 7-point scale, with 1 considered inadequate; 3, minimal; 5, good; and 7, excellent. The scales are weighted to guarantee that key aspects for positive development are more heavily represented than individual items (Cryer, Harms, & Riley, 2003).

Table 10 highlights ECERS scores from a sample of 4K classrooms in South Carolina. First Steps-funded 4K classrooms had an average score of 4.6 on Space and Furnishings and 3 on Personal Care Routines compared to non-First Steps 4Ks, which had an average score of 4.3 on Space and Furnishings and 2.5 on Personal Care Routines. First Steps-funded classrooms had an average score of 5.6 on Language-Reasoning, 5 on Activities, 5.4 on both Interaction and Program Structure, and 5.1 on Parents-Staff, with an overall average of 4.8. Non-First Steps classrooms had an average score of 5.4 on Language-Reasoning, 4.6 on Activities, 5.1 on Interaction, 5.0 on Program Structure, and 5.3 on Parents-Staff, with an overall average of 4.58. Analysis indicated no significant differences between the two groups.

First Steps-funded 4K and non-First Steps 4K had average overall scores of 4.8 and 4.58 respectively, indicating these classrooms are between minimally adequate and good in their ability to provide high quality educational experiences for children. The range of scores, however, does indicate that at least some of the classrooms are providing excellent quality.

**Table 10. Early Childhood Environment Rating Scale (ECERS) Scores for First Steps 4K and Non-First Steps 4K**

Curricular Area	Mean	Std. Dev.	Range
Space and Furnishings			
First Steps 4K	4.60	1.16	2.5–6.8
Non-First Steps 4K	4.30	1.27	1.8–6.7
Personal Care Routines			
First Steps 4K	3.00	1.44	1.0–7.0
Non-First Steps 4K	2.50	1.33	1.0–7.0
Language-Reasoning			
First Steps 4K	5.60	1.09	3.0–7.0
Non-First Steps 4K	5.40	1.32	1.3–7.0
Activities			
First Steps 4K	5.00	1.34	2.3–7.0
Non-First Steps 4K	4.60	1.39	2.1–7.0
Interaction			
First Steps 4K	5.40	1.52	1.4–7.0
Non-First Steps 4K	5.10	1.58	1.4–7.0
Program Structure			
First Steps 4K	5.40	1.21	2.25–7.0
Non-First Steps 4K	5.00	1.65	1.0–7.0
Parents and Staff			
First Steps 4K	5.10	0.92	3.0–.0
Non-First Steps 4K	5.30	01.1	2.0–7.0
Overall Score			
First Steps 4K	4.80	1.01	2.7–6.5
Non-First Steps 4K	4.58	1.16	2.2–6.5

*Note:*  $n = 41$  First Steps 4K;  $n = 76$  Non-First Steps 4K.

### Short-Term Outcomes for Children in 4K

In the fall of 2004, NIEER collected data on currently enrolled 4K children as a part of their multistate study of state-funded preschool programs. For this evaluation, follow-up spring data was collected on that NIEER sample. Specifically, data was able to be collected on 257 preschool children in both the fall and the spring of the 2004–2005 school year. Of these, 118 were male (46%) and 139 were female (54%). Fifty-three

percent were African-American, 43% were White, and the other 4% were other minorities. Sixty-three percent were eligible for free and reduced lunch in both the fall and the spring, and 3% had a teacher-reported handicapping condition. The majority of the children were in a half-day program (57%).

Children were evaluated using the Peabody Picture Vocabulary Test, 3<sup>rd</sup> Edition (PPVT-III; Dunn & Dunn, 1997). The PPVT-III is a direct measure of vocabulary size, and the order of the item difficulties is reflective of the frequency of words used in spoken and written language. Other measures included the Preschool Comprehensive Test of Phonological and Print Processing (Pre-CTOPPP; Lonigan, Wagner, Torgeson & Rashotte, 2002.) and the Social Skills Rating Scale (SSRS; Gresham and Elliott, 1990). Two subtests from the Pre-CTOPPP, blending and print awareness, were used. The SSRS measures positive social behaviors including cooperation, empathy, assertion, self-control and responsibility, and problem behaviors such as externalizing problems (aggressive acts and poor temper control), internalizing problems (e.g., sadness and anxiety), and hyperactivity (e.g., fidgeting and impulsive acts). Children showed significant gains between fall and spring in their receptive vocabulary, blending, and print awareness abilities. Their social skills also significantly improved in the areas of cooperation, self-assertion, self-control, and their overall social skills.

**Table 11. Fall to Spring Gains for 4K Children in the NIEER Sample**

Test	Mean (standard deviation)			
	Fall		Spring	
	<i>M</i>	SD	<i>M</i>	SD
PPVT-III**	92.26	14.01	96.98	13.34
Pre-CTOPPP				
Blending**	15.57	4.20	18.13	3.63
Print Awareness**	16.29	9.69	25.73	8.69
Social Skills Rating Scale				
Cooperation*	1.43	0.39	1.49	0.02
Assertion**	1.20	0.46	1.32	0.47
Self-control*	1.38	0.41	1.46	0.40
Externalizing Problems	0.44	0.44	0.42	0.47
Internalizing Problems	0.19	0.31	0.22	0.31
Social Overall**	1.34	0.37	1.43	0.36
Behavior Problems Overall	0.34	0.32	0.34	0.35

*Note:* \*\*:  $p < .01$ ; \*:  $p < .05$

### Long-Term Outcomes for First Steps Children

Analyses examined the impact of attending early education on grade retention rates, special education placement, and SCRA. Outcomes were considered for all children across all cohorts of available data. First Steps specific outcomes reported in this section resulted from analysis using First Steps-funded identified children in cohorts 3 (2003–2004) and 4 (2004–2005) when sufficient sample sizes existed. Due to problems with missing data and small sample sizes, results from this analysis should be generalized with caution (see data problems description earlier in chapter). Retention and special education placement were assessed by calculating odds ratios. The odds ratios are based on a logistic regression analysis adjusting for the effects of 11 child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother’s schooling, free lunch index, food stamp, Medicaid, TANF status, and foster care placement) as well as school district effects. The odds ratio compares the likelihood of being retained in grade or receiving a special education placement between participation in a particular 4K program and not attending 4K at all. For example, an odds ratio of less than 1 indicates a reduction in the odds of being retained and a ratio greater than 1

indicates an increase in the odds of retention when compared to children who did not attend 4K. SCRA scores were analyzed using regression analysis, adjusted for effects of the same 11 child characteristics as well as school effects.

Using cohort 3 (2003–2004) data, analysis indicated that the impact of enrollment in 4K for First Steps children reduced their odds of retention in kindergarten compared to the no-4K children. Due to unavailability of the data this analysis was not completed for cohort 4 (2004–2005). As Table 12 indicates, the odds of First Steps 4K children being retained in kindergarten was .84 compared to the no-4K group. This means that First Steps 4K had a 16% reduction in the odds of grade retention in kindergarten compared to the no-4K group. While this finding was not significant it does potentially indicate a trend for First Steps children that participation in 4K reduces retention. First Steps children who did not attend 4K had a 25% decrease in the odds of being retained and the non-First Steps 4K participants had a 24% decrease indicating these two groups were the least at risk for retention compared to the no-4K group. This finding of First Steps-funded children who did not go to 4K having reduced odds of grade retention is linked to the special education placement findings in Table 13. That is, this group of First Steps children had a decrease in grade retention but a significant increase in the odds of special needs placement.

**Table 12. Odds Ratio of Kindergarten Retention by Program Type (Cohort 3: 2003–2004)**

Type	<i>N</i>	Odds Ratio	Estimated % Retained
No 4K	26600		5.4
Non-First Steps 4K	14685	0.76**	4.1
First Steps-Funded with 4K	2667	0.84†	4.6
First Steps Funding without 4K	373	0.75	4.1

*Note.* \*\*:  $p < .01$ ; \*:  $p < .05$ ; †:  $.05 < p < .10$ .

For special education placement, there was no significant difference between either First Steps-funded with 4K and non-First Steps 4K children compared to no-4K children. There was, however, a difference between First Steps-funded children with no 4K and other no-4K children. The odds of experiencing a special education placement were 38% greater for these children. Overall, special needs placement rates for this group were estimated at 18.9%—a full 4 points higher than all of the other groups. While not

significant, this indicates that First Steps children who do not attend 4K trend toward greater risk for experiencing special education placement.

**Table 13. Odds Ratio of Special Needs Placement in First Grade by Program Type (Cohort 3: 2003-2004)**

Type	<i>N</i>	Odds Ratio	Estimated % Placed
No 4K	26600		14.4
Non-First Steps 4K	14685	0.98	14.2
First Steps-Funded with 4K	2667	1.01	14.5
First Steps Funding without 4K	373	1.38†	18.9

*Note.* †:  $.05 < p < .10$ .

SCRA scores are typically reported as 13 indicators that are grouped within three domains (mathematics, English language arts, and personal and social development). In an attempt to reduce the number of outcome variables of interest, a factor analysis was conducted on the SCRA data. Eigen values were used as a criterion for a factor analysis solution. Two factors emerged from 13 items of the personal/social scale, one emerged from 12 items of the language scale, and one emerged from 14 items of the math scale. These explained 66–72% of the variance of each of the scales. The results were very consistent across grade and cohort.

Based upon the factor loadings of items, four factors were named: language, math, approaches to learning, and social skills. These were then utilized as outcome variables representing SCRA measures. Because in strict use, Work Sampling System items should not be aggregated into and analyzed as domain scores, the analyses of SCRA scores by program type and funding source presented here use factor scores<sup>3</sup>. Appendix A presents the full factor analysis results.

The differences in academic achievement between no 4K, non-First Steps 4K, First Steps-funded with 4K, and First Steps-funded children without 4K were assessed using regression analysis of SCRA scores for all the comparison groups (after adjusting for school effects and the effects of 11 child characteristics: age, gender, ethnicity, low birth weight, special education placement at kindergarten, mother's schooling, free lunch

<sup>3</sup> Work Sampling System creator, Samuel Meisels, was consulted regarding the analyses presented.

index, and number of years receiving food stamps, Medicaid, TANF, and foster care). Group mean scores were calculated for each of the groups in each of the developmental areas (personal/social, language arts, and math). Factor scores have a mean of zero and a standard deviation of 1. Analyses using factor scores indicate the average levels of achievement of each subgroup relative to the whole group average.

As Table 14 indicates, in the areas of language, math, and learning approaches, First Steps children in cohort 3 who did not attend 4K had lower scores than the three other comparison groups in both kindergarten and first grade. In kindergarten, language, math, and learning approaches were all .16 below the mean. These trends continued into first grade although language ceased being significant. In kindergarten, children who attended 4K (both First Steps and non-First Steps) scored closely to each other and both groups were significantly above both no-4K groups in language and math.

All children who attended 4K (both First Steps and non-First Steps) scored significantly higher than non-4K children in the areas of language and math. This indicates that for these children the 4K experience had significant impact on their language and mathematical skills and abilities.

**Table 14. Kindergarten SCRA Scores by Program Type and Funding Source for Cohort 3 (2003–2004) and Cohort 4 (2004–2005)**

SCRA Factor	Program Type	Cohort 3 (2003-2004)				Cohort 4 (2004-2005)			
		Kindergarten		1 <sup>st</sup> Grade		Kindergarten		Kindergarten	
		N	Mean Factor Score	N	Mean Factor Score	N	Mean Factor Score	N	Mean Factor Score
Language	No 4K	26611	0.02	23615	0.04	27831	0.01		
	Non-First Steps 4K	14380	0.07	12928	0.03	15144	0.05		
	First Steps-Funded with 4K	2667	0.07	2296	0.00	1173	0.07		
	First Steps Funding without 4K	367	-0.16	318	-0.05	420	0.04		
	Statistical significance	**	—			**	**		
Math	No 4K	26619	0.00	23602	0.01	27822	-0.00		
	Non-First Steps 4K	14374	0.06	12924	0.02	15127	0.05		
	First Steps-Funded with 4K	2666	0.07	2296	0.02	1173	0.05		
	First Steps Funding without 4K	367	-0.16	317	-0.12	421	-0.02		
	Statistical significance	**	†			**	**		
Approaches to Learning	No 4K	26633	0.03	23624	0.05	27837	0.03		
	Non-First Steps 4K	14397	0.03	12940	0.03	15149	0.04		
	First Steps-Funded with 4K	2665	0.04	2295	-0.01	1174	0.06		
	First Steps Funding without 4K	367	-0.16	318	-0.10	421	0.00		
	Statistical significance	**	**			—	—		
Social	No 4K	26633	-0.01	23624	-0.04	27837	-0.02		
	Non-First Steps 4K	14397	0.04	12940	0.00	15149	0.03		
	First Steps-Funded with 4K	2665	0.04	2295	-0.01	1174	0.00		
	First Steps Funding without 4K	367	-0.07	318	0.02	421	0.04		
	Statistical significance	**	**		**	**	**		

**Note:** \*\*:  $p < .01$ ; — :  $p > .10$ .

### Comparison of Child Outcomes Between Full-Day, Half-Day and No-4K Participation

According to the First Steps Fifth Anniversary Report 1999–2004 (2005), over the last four years 4,126 children were served by having half-day 4K classes extended to full day. Two separate analyses were conducted to investigate whether or not enrollment in half-day versus full-day 4K is related to child outcomes. The first examined the impact on First Steps children alone, using as a sample First Step full-day and half-day 4K participants, as well as on non-4K children. The second analysis looked at the all of the cohorts of children. Due to problems with missing data and small sample sizes, results from First Steps specific analysis should be generalized with caution (see data problems description earlier in chapter). Additionally, due to inadequate sample sizes in cohort 4, only cohort 3 was able to be used for the First Steps specific half- versus full-day analysis.

As shown in Table 15, among First Steps-funded children who participated in 4K, those enrolled in full-day programs had non-significant but slightly increased odds of grade retention in first grade when compared to half-day or no-4K children. Full-day children had a 13% increased chance of being retained and half-day had a 9% percent increased chance of being retained.

**Table 15. Odds Ratio of Kindergarten Retention for First Steps-Funded Children, Half-Day vs. Full-Day Cohort 3 (2003-2004)**

Type	N	Odds Ratio	Statistical Significance
No 4K	374		
Half-day	601	1.09	—
Full-day	2023	1.13	—

*Note.* — :  $p > .10$ .

As shown in Table 16, for special education placement there was no significant difference between First Steps full-day and half-day placement when compared to no 4K. The odds of experiencing a special education placement in first grade were non-significantly reduced 4% for full day and 2% for half day.

**Table 16. Odds Ratio of Special Education Placement in First Grade for First Steps-Funded Children, Half-Day vs. Full-Day Cohort 3 (2003–2004)**

Type	<i>N</i>	Odds Ratio	Statistical Significance
No 4K	374		
Half-day	601	.98	—
Full-day	2023	.96	—

*Note.* — :  $p > .10$ .

Table 17 shows a comparison among First Steps-funded children of kindergarten SCRA scores for half-day versus full-day enrollment. In general, First Steps-funded full-day children had higher language, math, and approaches to learning scores when compared to the half-day and no-4K children however only language scores were significant

**Table 17. Kindergarten SCRA Factor Scores for First Steps-Funded Children Half- Day vs. Full-Day Cohort 3 (2003–2004)**

SCRA Factor	Type	<i>N</i>	Factor Mean Score
Language	No 4K	368	- 0.18
	Half-day	606	- 0.19
	Full-day	2023	- 0.04
	Statistical significance		†
Math	No 4K	368	- 0.19
	Half-day	605	- 0.11
	Full-day	2023	- 0.05
	Statistical significance		—
Approaches to Learning	No 4K	368	- 0.16
	Half-day	606	- 0.16
	Full-day	2021	- 0.01
	Statistical significance		—
Social	No 4K	368	- 0.15
	Half-day	606	0.08
	Full-day	2021	- 0.10
	Statistical significance		†

*Note.* \*:  $p < .05$ ; †:  $.05 < p < .10$ ; — :  $p > .10$ .

While there were relatively weak findings of a full-day effect within the First Steps specific data, analysis of all children enrolled in 4K across all cohorts of data

indicate that the impact of enrollment in a full day versus a half day of preschool is significant. Logistic regression analysis, adjusted for effects of 11 child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status) and school district effects was used to calculate both the odds ratios and estimated percentages presented in Tables 18 and 19.

Table 18 shows that for all cohorts, enrollment in either a half-day or full-day 4K significantly reduced the odds of being retained compared to the no-4K group. The impact of full-day versus no preschool was equally as significant. The odds of being retained dropped in kindergarten for cohort 1 by a significant 40% for children who had attended full-day preschool. In grade one, there was a significant 22% reduction and a 14% reduction in grade two. For cohort 2, there was a significant 34% reduction in retention in kindergarten and a 21% reduction at grade one. For cohort 3, the reduction was a significant 36% in kindergarten.

The impact of half-day versus no preschool was also significant. Children who attended half-day had a significant 20% reduction in the odds of retention in kindergarten, 11% at grade 1, and 7% in grade 2. Cohort 2 had a 16% reduction in odds in kindergarten and a 6% at grade 1. Cohort 3 experienced a 19% reduction in kindergarten.

For cohort 1, children who attended a full day of preschool had a significant 25% reduction in the odds of grade retention in kindergarten compared to the half-day group (3% of children were retained). At grade one, they had a non-significant 13% reduction (10% were retained), and at grade two a non-significant 8% reduction (13% were retained). For cohort 2 children who attended a full-day program, there was a significant 22% reduction in grade retention in kindergarten (3% were retained) and a 16% reduction at grade one (9% were retained) compared to half-day children. For cohort 3 there was a significant 21% reduction in kindergarten (3.5% were retained). Cohort 4 was not included in this analysis because they have not yet finished kindergarten therefore no retention or special education placement data was available.

As shown in Table 19, for special education placement there was no significant impact of full-day versus half-day preschool experience for any of the cohorts. The

biggest impact was on full-day versus no 4K. There was a significant reduction of special needs placement for full-day versus no 4K for cohort 1 in kindergarten (22% reduction), and grade 1 (14% reduction), and for cohort 2 in kindergarten (22% reduction), and grade 1 (10% reduction), and for cohort 3 in kindergarten (11% reduction). There was also an impact for half-day 4K (versus none), the odds of experiencing a special education was significantly reduced for cohort 1 in kindergarten (10% reduction); and cohort 2 in kindergarten (14% reduction) and grade 1 (13% reduction).

**Table 18. Odds Ratio of Grade Retention: Half-day, Full-day, and No 4K, by Grade and Cohort**

Cohort	Grade	N			Odds Ratio			Estimated % of Grade Retention		
		No 4K	Half-day	Full-day	Half-day vs. No 4K	Full-day vs. No 4K	Full-day vs. Half-day	No 4K	Half-day	Full-day
1	K	26572	10766	2655	0.80**	0.60**	0.75*	5.4	4.4	3.3
	1	25644	10511	2586	0.89*	0.78**	0.87	11.9	10.8	9.5
	2	24848	10314	2539	0.93†	0.86*	0.92	14.4	13.6	12.6
2	K	26373	8415	5772	0.84*	0.66**	0.78**	5.1	4.3	3.4
	1	25384	8188	5651	0.94	0.79**	0.84**	11.1	10.5	9.0
3	K	26973	7839	8248	0.81**	0.64**	0.79**	5.4	4.4	3.5

*Note.* \*\*:  $p < .01$ ; \*:  $p < .05$ ; †:  $05 < . p < 10$ ;

**Table 19. Odds Ratio of Special Education Placement: Half-day, Full-day, and No 4K, by Grade and Cohort**

Cohort	Grade	N			Odds Ratio			Estimated % of Special Education Placement		
		No 4K	Half-day	Full-day	Half-day vs. No 4K	Full-day vs. No 4K	Full-day vs. Half-day	No 4K	Half-day	Full-day
1	1	26572	10766	2655	0.90*	0.78**	0.87	15.1	13.7	12.2
	2	25644	10511	2586	0.95	0.86*	0.90	16.1	15.4	14.1
	3	24848	10314	2539	0.96	0.90	0.94	16.0	15.5	14.6
2	1	26373	8415	5772	0.86**	0.78**	0.91	14.7	12.9	11.9
	2	25384	8188	5651	0.87**	0.90*	1.03	15.9	14.2	14.5
3	1	26973	7839	8248	0.99	0.89*	0.90	14.5	14.4	13.2

*Note.* \*\*:  $p < .01$ ; \*:  $p < .05$ .

The relationship between SCRA scores and attending no 4K or a full- or half-day 4K program was also investigated. As Table 20 indicates, in the areas of language, math, and learning approaches, for all cohorts, children who were enrolled in a full-day 4K experience had higher scores in kindergarten than children who were enrolled in a half-day program or who had no preschool. Preschool effects were found to vary across ethnicity groups in 3 of the 4 cohorts. The effects of 4K were stronger for minority children than for their White counterparts at all levels of SCRA evaluation. For example, in language and math minority half- and full-day groups scored significantly higher than the no 4K group but this was not true for Whites. For Whites the effects are weaker and inconsistently significant.

Table 20. Kindergarten SCRA Score by Factor, Study Group, Ethnicity, and Cohort

SCRA Factor	Group	Factor Score (Mean)																	
		N			All Cohort			Non-White Cohort			White Cohort								
		1	2	3	4	1	2	3	4	1	2	3	1	2	3				
<b>Language</b>	No-prek	24791	26492	26978	28251	.04	.02	.02	.01	-.07	-.08	-.09	.01	-.07	-.08	-.09	.11	.10	.11
	Half-day	9595	8384	7827	8112	.09	.08	.05	.04	.03	.02	-.02	.04	.03	.02	-.02	.12	.13	.10
	Full-day	2291	5621	8115	6974	.13	.13	.12	.13	.08	.08	.05	.13	.08	.08	.05	.12	.14	.16
	Statistical Significance	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	—	*	*
<b>Math</b>	No-prek	24795	26544	26986	28243	.02	.02	.00	-.00	-.09	-.09	-.12	-.00	-.09	-.09	-.12	.09	.10	.10
	Half-day	9594	8450	7825	8102	.07	.07	.04	.04	.01	-.00	-.04	.04	.01	-.00	-.04	.11	.13	.10
	Full-day	2288	5629	8114	6971	.14	.13	.12	.12	.08	.07	.03	.12	.08	.07	.03	.15	.15	.16
	Statistical Significance	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	*	**	**
<b>Learning Approach</b>	No-prek	24727	26540	27000	28258	.04	.02	.03	.03	.02	-.02	-.02	.03	.02	-.02	-.02	.06	.05	.07
	Half-day	9565	8400	7828	8116	.05	.06	.01	.01	.03	.05	-.01	.01	.03	.05	-.01	.06	.06	.03
	Full-day	2278	5623	8127	6970	.10	.08	.07	.11	.11	.07	.05	.11	.11	.07	.05	.06	.07	.07
	Statistical Significance	†	**	**	**	†	**	**	**	*	**	**	**	**	**	**	—	—	*
<b>Social</b>	No-prek	24727	26540	27000	28258	-.00	.01	-.01	-.01	-.11	-.07	-.11	-.01	-.11	-.07	-.11	.07	.06	.06
	Half-day	9565	8400	7828	8116	.07	.07	.07	.07	.03	.03	.05	.07	.03	.03	.05	.10	.10	.10
	Full-day	2278	5623	8127	6970	.01	.02	.01	.01	-.08	-.02	-.06	.01	-.08	-.02	-.06	.05	.03	.06
	Statistical Significance	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	—	**	**

*Note.* Because of significant group \* race effects in the first 3 cohorts, their scores are also presented by race. All the scores are based on regression analysis adjusted for school effects and effects of 11 child characteristics (age, gender, ethnicity, low birth weight, special education placement at kindergarten, mother's schooling, free lunch index, and # of years receiving food-stamp, Medicaid, TANF, and foster-care). \*\*: $p < .01$ ; \*: $p < .05$ ; †:  $05 < p < .10$ ; —:  $p > .10$ .

While kindergarten effects are clearer than Grade 1, SCRA scores showed limited results in support of both half- and full-day 4K. As Table 21 indicates, SCRA language scores for all cohorts showed no significant differences between any of the groups. In math, cohort 2 children who were enrolled in half-day 4K program scored significantly higher than no 4K. In cohort 1, half-day 4K children scored lower than no-4K children in approaches to learning.

**Table 21. Grade One SCRA Score by Factor, Study Group, and Cohort**

SCRA Factor	Group	N			Factor Score (Mean)		
		Cohort			Cohort		
		1	2	3	1	2	3
Language	No 4K	22362	23784	23933	.08	.06	.04
	Half-day	8846	7709	6958	.06	.07	.04
	Full-day	2138	5170	7261	.08	.05	.04
	Statistical Significance				—	—	—
Math	No 4K	22395	23790	23919	.06	.03	.02
	Half-day	8860	7719	6958	.06	.06	.04
	Full-day	2145	5170	7260	.08	.06	.04
	Statistical Significance				—	*	—
Approaches to Learning	No 4K	22389	23804	23942	.07	.06	.06
	Half-day	8868	7715	6959	.04	.04	.03
	Full-day	2144	5176	7263	.06	.05	.04
	Statistical Significance				*	—	—
Social	No 4K	22389	23804	23942	-.00	-.01	-.03
	Half-day	8868	7715	6959	.04	.07	.03
	Full-day	2144	5176	7263	.00	-.02	-.01
	Statistical Significance				**	**	**

*Note.* All the scores are based on regression analysis adjusted for school effects and effects of 11 child characteristics (age, gender, ethnicity, low birth weight, special education placement at kindergarten, mother's schooling, free lunch index, and number of years receiving food stamps, Medicaid, TANF, and foster care). \*\*:  $p < .01$ ; \*:  $p < .05$ ; — :  $p > .10$ .

Across the state, PACT testing is implemented in a way that allows for children to be tested either at or below their grade level. This PACT analysis included only those third-grade students whose tested grade level equaled grade three. If a child was tested off-grade level, they were not included. Prior to analyzing the PACT data, the odds ratio of taking the grade three test (compared to lower levels) was calculated. There were no significant differences between the three groups (half day, full day, and no 4K) except in the math test. The odds of taking the grade three math test is significantly higher for the full-day 4K group than the no-4K group (odd ratio=1.65,  $p < .05$ ). The trend was that children who had enrolled in full-day 4K programs were more likely to take on grade-level tests than no-4K children.

Third grade PACT scores showed significant differences between the three groups, as indicated in Table 22. Interestingly, children who attended a half-day program were more likely to score lower than both their no-4K and full-day 4K peers. Similar to the kindergarten SCRA analysis the effects varied across ethnicity groups. For minorities there were no significant differences between full-day, half-day and no-4K in all testing areas except language in which half-day scored lower than both full-day and no-4K. For the White group, no-4K scored significantly higher than half-day in four areas and significantly higher than full-day in science and social studies. In addition, half-day scored significantly lower than full-day in language and math. As in all of the previous analyses, all the scores are adjusted for age, gender, ethnicity, low birth weight, special education placement at kindergarten, mother's schooling, free lunch index, and number of years receiving food stamps, Medicaid, TANF, and foster care. It is possible that the prior retention of less able students impacted mean scores.

**Table 22. Grade Three PACT Score by Study Group and Ethnicity (for Cohort 1)**

Scale	Group	N	Scale Score (Mean)		
			All	Non-White	White
ELA	No 4K	19245	313.4	310.7	315.2
	Half-day	7559	311.7	310.1	312.6
	Full-day	1870	313.2	311.1	314.2
	Significant difference		**	**	**
Math	No 4K	19336	311.2	308.1	313.2
	Half-day	7604	309.9	307.6	311.3
	Full-day	1885	310.7	307.9	312.7
	Significant difference		**	—	**
Science	No 4K	19553	304.9	300.5	307.8
	Half-day	7722	303.7	300.3	305.9
	Full-day	1908	304.6	301.0	306.5
	Significant difference		**	—	**
Social Studies	No 4K	19548	309.9	306.3	312.3
	Half-day	7720	308.4	305.8	310.0
	Full-day	1906	308.9	306.1	310.4
	Significant difference		**	—	**

*Note.* \*\*:  $p < .01$ ; — :  $p > .10$ .

## Summary

As described in the data problems discussion, significant data problems became evident during the course of this evaluation. These problems included the following: (1) During the first two years of First Steps program implementation 2000–2002, First Steps children were not identified in DOE or First Steps databases, or data that was collected was incomplete; (2) Due to rules and regulations regarding privacy and proprietary issues within ORS, High/Scope was not able to verify the methods used to create the databases provided to it nor were we able to verify the accuracy of these databases; and (3) First Steps databases, collected by the ORS, have serious missing-data problems. It is impossible for High/Scope to determine whether databases provided are representative of

all First Steps clients and whether results can be generalized. Analysis specific to First Steps clients must be interpreted with caution.

A general lack of sufficient sample sizes hindered the ability to fully describe the programmatic components of 4K and First Steps-funded classrooms and also limits generalizations that can be made. What can be said is that the majority of teachers who teach in 4K are certified in early childhood (65%) and have a master's degree (51%). Rates of early childhood certification and a bachelor's or higher degree earned tend to be higher in First Steps-funded classrooms than in other 4K classrooms. Curricular fidelity and the quality of classrooms indicate that, on average, classrooms are of adequate quality but are not implementing the High/Scope curriculum with a high degree of fidelity.

The analysis of cohort data clearly indicates that children who receive First Steps funds experience more risk factors for school failure than those who do not. They are more likely to be poor and are more often minorities compared to those who do not attend 4K at all. Among First Steps-funded with 4K children, those enrolled in full-day 4K are the most disadvantaged. Overall, however, First Steps-funded children who do not attend 4K are the poorest and most at-risk.

There is evidence that all children who attend 4K increase their language, math, and learning approaches over the course of one preschool year. There is also evidence that 4K produces better long-term outcomes for all children who attend. There is a trend among First Steps children who attend 4K of improvement in their odds of grade retention and they generally scored higher on SCRA compared to non-4K First Steps children. Children who participated in First Steps-funded programs without 4K are most at risk for special needs placement and lower academic achievement compared to both their First Steps-funded with 4K and non-First Steps 4K peers.

There appears to be consistent evidence that enrollment in full-day 4K has positive effects on child outcomes particularly during the kindergarten year. It is clear from these analyses that while, in general, 4K experiences reduce the odds of being retained, full-day 4K has a greater impact in reducing the odds of being retained. A consistent finding within the SCRA and PACT scores is that 4K effects are stronger for minority children than for White children.

# Quality Enhancement Programs and Child Care Expansion

## Introduction

Every day, millions of children between the ages of birth to eight years spend a portion of their day in a child care setting while their parents work. In the United States, almost 60% of preschool-aged children (five years old and younger) are in nonparental care on a regular basis (U.S. Department of Education, 1998). In South Carolina, the National Child Care Center reports that in 2003, 64% of children under age six lived with working parents. This statistic includes children with a working, single parent and children living with two parents, both of whom work.

The National Research Council (NRC, 2000) defines child care as more than just care for children while their parents work. The NRC notes that previous distinctions between early education, preschool, and day care no longer exist, and that child care should be seen as providing services such as

provision of nurturance and learning opportunities for children, preparation for school, support for working parents, reduction of poverty, respite care in child welfare cases, and access to supplemental services such as vision and hearing screening, development testing, feeding program, and even parent support and literacy programs (p. 299).

Research has consistently shown that children's language and cognitive skills flourish in child care programs high in quality where care is provided by responsive caregivers who have adequate training and support. In centers and homes with poorly trained staff, children have limited opportunities to be read to and talked to and often have inappropriate emotional support and interactions. In centers where television or videos have replaced interactions with others, children do not develop appropriate readiness skills and attitudes toward school success. Specific recent findings show that children who were enrolled in high-quality care (compared to those in nonquality care) demonstrate better receptive language, and math skills (Peisner-Feinberg, et al., 1999).

Quality of child care over the first three years of life is positively associated with children's cognitive and language development.

The higher the quality of child care (more positive language stimulation and interaction between the child and provider), the greater the child's language abilities at 15, 24, and 36 months, the better the child's cognitive development at age two, and the more school readiness the child showed at age three. Other research has shown a consistent, positive and strong relationship between participation in quality child care centers and rates of school readiness and development in the cognitive domains. Additionally, this research has shown that in poor-quality programs, opportunities to stimulate development are lost due to poorly trained staff which often results in children having few opportunities that are necessary to the development of healthy intellectual and social capacities (National Institute of Child Health and Development, 1997). Children are placed in jeopardy by poor-quality care and the lack of affordable care.

Because of the strong relationship between child care quality and children's development and readiness for school, First Steps has focused a significant portion of its efforts on improving child care experiences for children in South Carolina. The goals of First Steps to School Readiness in the area of child care are to

- Increase the availability of quality childcare choices for parents as measured by increasing numbers of child care providers operating at higher levels of quality.
- Increase the number of child care vouchers available to SC families for quality child care.
- Increase the school readiness focus in child care settings.
- Increase the leverage of federal and private resources to serve the state's most at-risk children.
- Increase the number of child care workers achieving progress toward early education certification and continued professional development.
- Improve the quality of physical and learning environment in child care settings of all type.
- Expand public and private partnerships in 4K education.

The three primary areas in child care that First Steps focuses on are child care quality enhancement, child care worker professional development, and expanded access to quality child care. Strategies adopted by First Steps include the following:

- Quality enhancement: First Steps provides funds to help child care providers improve their quality by upgrading their child care licensing or ABC-enhanced requirements and by offering technical assistance and mentoring.
- Staff training and development: First Steps provides and funds staff training, development and mentoring to improve quality in child care settings.
- Increased availability of child vouchers: First Steps provides funds to increase the number of child care subsidies to eligible families.
- Teacher Education and Compensation Helps (TEACH) funding: First Steps funds scholarships for teachers who work in child care settings to complete coursework in early childhood education.

## **Evaluation Questions**

Research questions were developed by focusing on the strategies adopted by First Steps. The first four research questions are as follows:

1. What types of child care programs receive First Steps funding?
2. What types of technical assistance are available to child care centers as a result of First Step funding?
3. What types or forms of teacher training (enhancements) are provided to programs/staffs?
4. Is there evidence of program quality improvement as a result of the training provided by First Steps funding?

There were several reasons for asking these questions. The first reason was to describe the characteristics of child care providers who participate in the First Steps program; the second was to describe the types of training/quality enhancement being

provided by the funds; the third was to describe whether First Steps funding is influencing program quality.

Questions linking the specific issues of improved child care quality to improved child outcomes were not asked. This was for several fundamental reasons. First, the links between the receipt of a child care voucher and child outcomes are indirect and, in this case, extraordinarily tenuous. The receipt of a voucher is perhaps the difference between a child having a prekindergarten experience or not—which could lead to an investigation of whether or not preschool versus no preschool mattered for school readiness. (This question is one that is addressed in the analysis described in the early education section.) However, the pivotal question in the child care area is about the types of preschool experiences that children receive in the programs they attend using vouchers. The logic model, while indirect, is research-based, that is, higher quality preschool experiences lead to better child outcomes. The focus here is on the impact of investments in teachers and classrooms.

One of the strategies of First Steps in the area of child care is to increase the number of child care vouchers available to SC families. Thus the remaining research questions addressed in this chapter are related to that strategy:

5. What are the descriptive characteristics of families receiving First Steps and ABC child care funding (First Steps scholarships, ABC vouchers)?
6. How long does the average recipient receive funding?

The first of these participant questions was designed to address a concern voiced by First Steps staff members. Specifically, there was a desire to have more information and documentation of how successfully vouchers are being targeted towards high-risk families. This interest in targeting is also tied to issues of program quality; that is, are the families most in need actually receiving tuition support and does that support help them access quality child care?

## Methods

High/Scope initially planned to review all PERs provided by the state Office of First Steps that were completed by county partnerships to determine the types of child care experiences First Steps is funding across the state. It was hoped that this review would be able to provide information about the technical assistance and teacher training being made available to child care centers and their programs and staff. After conducting an initial review, it became clear that the PERs would be less than effective in providing the answer to these questions due to the varied and sometimes incomplete manner in which they were completed. As an alternative, a questionnaire was created that was distributed to all child care centers that, according to county First Steps offices, had participated in quality enhancements and training during the previous year. First Steps office staff provided a listing of child care centers surveyed. Surveys were mailed directly to each child care center and family/group day care on the list. Responders were provided with self-addressed stamped envelopes to allow the questionnaires to be returned directly to the High/Scope Foundation. This was to allow for confidentiality by having responses only seen by High/Scope researchers and staff.

Two versions of the child care survey were created, one for child care centers and a separate one for family/group day cares. Questions on both surveys included inquiries regarding background information for the centers (e.g., enrollment, staff qualifications and experiences) and information regarding the center's experiences with First Step quality enhancements and training. Using a telephone interview developed by Holloway, Kagan, Fuller, Tsou, and Carrol (2001) as a guide, both surveys included questions that addressed the quality of the child care environments. It was planned that a percentage of both child care centers and family/group day cares that had completed the survey would also receive either an Early Childhood Environment Rating Scale (ECERS) or Family Day Care Rating Scale (FDCRS) evaluation. The goal was to be able to determine if the training and technical assistance provided by First Steps has had an impact on the quality of child care being provided to children across the state and to draw inferences between scores on the Holloway et al. rating scale and the ECERS and the FDCRS. Problems

arose (described in the Data Problems section below) that limited our analytic ability to draw inferences between ECERS/FDCRS and the Holloway et al. scale.

The Office of First Steps and the South Carolina Office of Research and Statistics data warehouse were utilized to describe the characteristics of families receiving First Steps child care funds. Data Warehouse files were utilized to answer questions regarding client participants. First Steps participants who received ABC vouchers were compared with non-First Steps recipients of ABC vouchers to describe the characteristics of recipients.

### Data Problems

During the data collection phase, High/Scope worked with the Office of First Steps and the Office of Research and Statistics (ORS) as well as the First Steps staff to obtain all planned data described in the original plan. Problems arose during the collection phase. These included:

1. Navigating multiple bureaucracies to get access to data resulted in time delays which impacted High/Scope's ability to analyze and clarify data and potentially look for alternative methods of answering research questions.
2. First Steps has either not been collecting program information about their participants or data collected is not useful for evaluation. For example, when asked to provide a listing of all child care centers who had participated in quality enhancement during the past year First Steps was unable to do so. First Steps state staff contacted individual counties asking for this information which was used for survey distribution.
3. First Steps staff were unable to complete data collection they were responsible for. First Steps was to provide trained evaluators to complete ECERS, ITERS, and FDCRS visits in randomly selected child and family/group child care centers. They were unable to complete a sufficient number of ECERS and ITERS and

unable to complete any FDCRS. This resulted in an ability to analyze child care quality in a meaningful manner.

### Sample

High/Scope was provided with a list of 682 child care or family/group centers that were reported to have participated in some form of First Steps-sponsored child care strategy. Child care surveys were distributed to 472 child care centers, after-school programs and child care centers with after school programs. Family or group day care surveys were distributed to 177 family or group day cares across the state. Three hundred and twenty (66%) of the child care center survey's and 108 (61%) of the family/group day cares were returned. Twenty-six surveys were returned to High/Scope as undeliverable (i.e., wrong address, center was no longer in business, etc.) and 5 sites were later discovered to have been part of the First Steps experience but were not on the original list and did not receive a survey.

## **Findings**

### Characteristics of First Steps-Funded Child Care Providers

Table 23 describes the characteristics of the child care centers who returned their surveys. Fifty-six percent of the child care centers were for-profit businesses and 89% of them were independently owned or operated. Forty-four percent were not-for-profit programs and the largest not-for-profit sponsors were church or religion-based organizations (59%). The majority of these centers hold Department of Social Services (DSS) licensing (79%). Thirteen percent are registered and 8% are approved. Seventeen percent report that currently or in the past they have been accredited by a professional agency such as NAEYC. Seventy-eight percent participate in the ABC voucher program (17% at level 1, 61% at level 2).

**Table 23. Descriptive Characteristics of Child Care Centers**

Characteristic	<i>N</i>	%
Child Care Program Type		
Child Care Center	137	48
Child Care Center with After-School Program	126	44
Other	24	8
Profit Status		
For-profit	159	56
Independently Owned	143	89
Not-for-profit	125	44
Church or Religion-based	67	59
Type of Licensure		
DSS-Registered	37	13
DSS-Licensed	220	79
DSS-Approved	23	8
Center Accredited	45	17
ABC Voucher Participation		
Level 1: Participating	46	17
Level 2: Enhanced Provider	170	61
No Participation	62	22
Enroll Children with Disabilities	160	58

Table 24 describes the characteristics of the family or group day care centers who returned their surveys. Fifty-five percent of the respondents were family day care providers and 42% were group day care providers. The majority of these centers are DSS-licensed (57%), 42% are registered, and 1% are approved. Seventy-nine percent of them participated in the ABC voucher program (25% at level 1, 54% at level 2). Most had been in business for 6 years or more and identified enjoying caring for children as the most common reason for their business. Problems with parents and low pay were the most common problems encountered. Thirty-six percent identified that they currently or in the past have enrolled children with disabilities.

**Table 24. Descriptive Characteristics of Family/Group Care Providers**

Characteristic	<i>N</i>	%
Child Care Program Type		
Family Day Care	53	55
Group Day Care	41	42
Other	3	3
Enroll Children with Disabilities	47	36
Type of Licensure		
DSS-Registered	53	42
DSS-Licensed	72	57
DSS-Approved	1	1
Length of Time Caring for Children		
0–12 months	5	6
12–23 months	4	4
24–35 months	8	9
3–5 years	25	28
6 years or more	48	53
Most Common Reasons for Caring for Children		
Enjoy caring for children	82	66
Want to be in business for self	46	37
Earn an income	23	18
Biggest Problems Encountered		
It does not pay well	28	23
Problems with parents	33	28
It is hard to collect payments	22	18
ABC Voucher Participation		
Level 1: Participating	30	25
Level 2: Enhanced Provider	65	54
No Participation	26	22

### Provider Participation in Quality-Enhancement Programs

Table 25 describes the First Steps programs the centers participated in or received funding from. The most common forms of program participation were facility quality enhancement and center staff training and development; the most common First Steps experiences centers participated in were using funds to purchase supplies, materials or

equipment and to pay for training opportunities for teaching and caregiving staff. For centers who participated in training opportunities the most often cited topics were appropriate reading techniques, curriculum, child growth and development, and health and safety. On-site consultation most often addressed the topics of age-appropriate supplies or materials, room arrangement, the ECERS, and curriculum. The supplies, materials or equipment, First Steps funds were most commonly used to purchase were age-appropriate materials for learning centers, classroom furniture, manipulatives and books. Twenty-eight percent reported increased ABC scores, licensing, or achieving NAEYC accreditation as a result of their First Steps participation. Ninety-three percent of the child care centers who participated in First Step opportunities rated their experiences as good or great.

Table 26 describes the First Steps programs that family or group child care providers participated in or received funding from. The most common forms of program participation were facility quality enhancement and center staff training and development. The most common First Steps experiences providers participated in were using funds to purchase supplies, materials or equipment, and for training opportunities. For providers who participated in training opportunities the most often cited topics were appropriate reading techniques, curriculum, child growth and development, and nutrition. On-site consultation most often addressed the topics of age-appropriate supplies or materials, room arrangement, the Family Day Care Rating Scale (FDCRS), and health and safety. The supplies, materials or equipment First Steps funds were most commonly used to purchase were age-appropriate materials for learning centers, classroom furniture, books, and infant-toddler materials. Thirty-five percent reported increased ABC scores, licensing, or NAEYC accreditation as a result of their First Steps participation. Ninety-four percent of the providers who participated in First Step opportunities rated their experiences as good or great.

**Table 25. Child Care Centers Quality Enhancement Participation**

Type of Enhancement	<i>N</i>	%
First Steps Program Participation		
Facility quality enhancements	184	65
Salary enhancements	15	5
Tuition reimbursements	61	22
Center staff training and development	186	66
Substitute payments	14	5
Scholarship initiatives	56	20
First Steps Experiences		
Training opportunities for staff	138	50
Training opportunities for parents	26	9
On-site consultation from child care experts	120	43
Funds to purchase supplies, materials, or equipment	218	78
Funds to renovate your building	17	6
Funds for substitute teachers	18	7
Funds to support staff participation in T.E.A.C.H.	114	41
Most Common Training Opportunities Utilized		
Appropriate reading techniques with children	90	62
Curriculum	99	69
Child growth and development	97	68
Health and safety	84	59
Most Common Topic of On-site Consultation		
Age-appropriate supplies or materials	143	77
Room arrangement	132	71
ECERS	82	44
Curriculum	84	45
Most Common Materials Purchased		
Age-appropriate materials for learning centers	199	90
Books	168	76
Classroom furniture	174	78
Manipulatives	172	77
Increased ABC scores, licensing, or achieved NAEYC accreditation	73	28
Rating of First Steps Opportunities		
Great/good	248	93
Fair/poor	20	7

**Table 26. Family/Group Care Quality Enhancement Participation**

Type of Enhancement	<i>N</i>	%
First Steps Program Participation		
Facility quality enhancements	77	62
Center staff training and development	56	45
Tuition reimbursements	17	14
Substitute payments	7	6
Salary enhancements	5	4
First Steps Experiences		
Funds to purchase supplies, materials, or equipment	91	77
Training opportunities	44	36
On-site consultation from child care experts	33	32
Funds to support staff participation in T.E.A.C.H.	30	30
Training Opportunities for Parents	14	12
Funds to renovate your building	9	10
Funds for substitute teachers	6	6
Most Common Training Opportunities Utilized		
Appropriate reading techniques with children	38	71
Child growth and development	36	68
Nutrition	33	62
Curriculum	31	58
Most Common Topic of On-site Consultation		
Age-appropriate supplies or materials	57	84
Room arrangement	36	53
Family Day Care Rating Scale (FDCRS)	35	51
Health and safety	32	47
Most Common Materials Purchased		
Age-appropriate materials for learning centers	87	86
Classroom furniture	83	82
Books	75	74
Infant and toddler materials or equipment	74	72
Increased ABC scores, licensing, or achieved NAEYC accreditation	40	35
Rating of First Steps Opportunities		
Great/good	111	94
Fair/poor	7	6

### Relationship Between Program Quality and Participation in Quality Enhancement Programs

The question of program improvement as a result of the training provided by First Steps funding is a difficult question to answer in this evaluation. The original plan called for ECERS to be conducted in a large enough proportion of child care centers that had participated in First Steps quality enhancements and had completed the child care survey to draw conclusions between the ECERS, a self-reported level of quality, and the amount of training and enhancements the center received. Unfortunately, as already described, an insufficient number of ECERS were conducted to enable the analysis hoped for. Nevertheless, the self-reported data in Tables 25 and 26 indicate that 28% of the child care centers and 35% of the family/group day care providers who participated in First Steps experiences either increased their ABC scores, advanced to a higher level of licensing, or achieved NAEYC accreditation.

Twenty-five ECERS were conducted in child care centers. Table 27 highlights the relationship between participation in First steps training opportunities and ECERS scores. Table 28 focuses on the relationship between ECERS scores and participation in First Steps on-site consultation opportunities. Analysis of variance and correlation analysis were unable to detect any statistically significant relationships between scores and whether a center had participated in First Steps training opportunities or on-site consultation. It is important to note that the ability to make generalizations about the impact of child care enhancements based on this ECERS data is limited for several reasons. There was no measure of the amount of time or intensity of training or consultation to include in the analysis. It was also unclear as to the length of time of participation in experiences. Additionally, the lack of a pre/post measurement of quality results does not allow specific conclusions to be drawn.

**Table 27. Early Childhood Environment Rating Scale (ECERS) Scores for Child Care Centers By Participation in First Steps Training Opportunities**

<b>Curricular Area</b>	<b>Mean Score</b>	<b>Std. Dev.</b>	<b>Range</b>
Space and Furnishings			
Participation in FS Training	3.7	.96	2.6–5.7
No Participation in FS Training	3.6	1.3	1.5–5.8
Personal Care Routines			
Participation in FS Training	2.9	1.0	1.6–4.6
No Participation in FS Training	3.0	1.3	1.6–5.8
Language-Reasoning			
Participation in FS Training	5.1	1.0	4–7
No Participation in FS Training	1.5	1.9	2–7
Activities			
Participation in FS Training	4.2	1.3	2.1–7.0
No Participation in FS Training	3.5	1.7	1.9–6.9
Interaction			
Participation in FS Training	5.7	1.1	3–7
No Participation in FS Training	5.6	1.6	2–7
Program Structure			
Participation in FS Training	5.3	1.4	2–7
No Participation in FS Training	5.0	1.6	2–7
Parents and Staff			
Participation in FS Training	3.5	1.1	1.3–5.8
No Participation in FS Training	4.6	1.1	3.2–6.5
Overall Score			
Participation in FS Training	4.2	.81	3.1–6.1
No Participation in FS Training	4.1	1.3	2.3–6.2

**Note:**  $n = 12$  Participation in FS Training;  $n = 10$  No Participation in FS Training.

**Table 28. Early Childhood Environment Rating Scale (ECERS) Scores for Child Care Centers By Participation in First Steps On-Site Consultation Opportunities**

<b>Curricular Area</b>	<b>Mean Score</b>	<b>Std. Dev.</b>	<b>Range</b>
Space and Furnishings			
Participation in FS Consultation	3.6	1.3	2–5.7
No Participation in FS Consultation	3.5	1.0	1.5–5.8
Personal Care Routines			
Participation in FS Consultation	3.1	0.48	1.6–5.8
No Participation in FS Consultation	2.3	1.20	2–3.1
Language-Reasoning			
Participation in FS Consultation	4.9	1.6	2–7
No Participation in FS Consultation	4.7	1.3	3–7
Activities			
Participation in FS Consultation	3.9	1.5	1.9–7
No Participation in FS Consultation	3.6	1.4	2.0–6.1
Interaction			
Participation in FS Consultation			
No Participation in FS Consultation			
Program Structure			
Participation in FS Consultation	5.0	1.7	2–7
No Participation in FS Consultation	5.0	1.4	2–7
Parents and Staff			
Participation in FS Consultation	3.8	1.1	2.2–6.5
No Participation in FS Consultation	4.1	1.5	1.3–6.5
Overall Score			
Participation in FS Consultation	4.1	1.0	2.3–6.2
No Participation in FS Consultation	4.0	1.0	2.6–5.9

*Note:*  $n = 18$  Participation in FS Consultation;  $n = 7$  No Participation in FS Consultation.

### Richland County Quality Enhancement Model

Data was obtained from the Richland County First Steps organization in an attempt to ascertain a clearer relationship between quality enhancements and child care quality. Richland has conducted pre- and post-measurements of child care centers who have participated in on-site consultation for the last 3 years. Centers were identified that had participated during the 2002–2003 and 2003–2004 school years. Thirty sites had both pre- and post-Infant-Toddler Environmental Rating Scale (ITERS) scores. Table 29 highlights the pre/post means, standard deviations, and range of scores for the centers.

Centers received an average of 204 hours of technical assistance (TA) over 2 years covering topics such as interactions between caregivers and children, health and safety, and curriculum. Technical assistance was provided over 8-month periods each year (September to mid-June) and averaged 3 hours per week in each center. Analysis controlling for the amount of technical assistance could not be accomplished because of little variance in the number of hours centers received.

Analysis of pre/post ITERS scores indicated significant change on four subscales as well as on the overall scores. Centers improved their scores on the subscales Furnishings and Display for Children, Listening and Talking, Learning Activities, and Overall Score. Personal Care Routines lowered. Results suggest the ability of First Steps quality enhancement to improve child care quality particularly in areas related to cognitive outcomes for children—specifically Listening and Talking and Learning Activities.

**Table 29. Richland County Infant-Toddler Environmental Rating Scale (ITERS) Scores For Child Care Centers**

Curricular Area	Mean Score	Std. Dev.	Range
Furnishings and Display for Children			
Pre-	4.50	0.88	2.6–5.8
Post-	5.10	0.93	3.2–7.0
Significance	**		
Personal Care Routines			
Pre-	3.50	0.73	2.3–5.0
Post-	3.30	0.96	2.0–5.7
Significance	*		
Listening and Talking			
Pre-	4.90	1.50	1.5–7.0
Post-	5.40	1.60	2.0–7.0
Significance	**		
Learning Activities			
Pre-	3.90	0.78	2.5–5.4
Post-	4.20	1.00	2.6–6.3
Significance	**		
Interaction			
Pre-	5.00	1.30	2.6–7.0
Post-	5.33	1.20	2.0–7.0
Significance	—		
Program Structure			
Pre-	4.00	1.10	2.0–7.0
Post-	4.40	1.60	1.5–7.0
Significance	—		
Overall Score			
Pre-	4.30	0.67	3.20–5.7
Post-	4.60	1.00	2.77–6.0
Significance	**		

*Note:*  $n = 30$ ; \*\*:  $p < .01$ ; \*:  $p < .05$ ; — :  $p > .10$ .

### Self-Reported Quality Ratings

Centers' self-reported quality ratings were significantly correlated to the teachers' levels of education, the amount of training received in the last twelve months, and the focus on training in staff meetings (Table 30). Specifically, the higher the teacher's level of education the more likely they reported providing more learning centers with a variety of learning experiences, materials for language development, appropriate daily communication activities, materials to develop fine motor skills, art activities and materials, and dress-up or dramatic play activities. Teachers who had more education reported providing more sand-and-water play indoors. They also report not giving children access to televisions and VCR/DVDs as well as a decrease in the use of worksheets. Teacher's education also resulted in reports of more appropriate staff/child interactions.

Self-reported quality information also indicated a relationship between the amounts of training the classroom teacher had received in the last twelve months and developmentally appropriate activities or quality ratings on a number of items. Specifically, the more training the teacher had experienced the more likely they were to report, providing more learning centers with a variety of learning experiences, materials for language development, appropriate daily communication activities, materials to develop fine motor skills, art activities and materials, and more dress-up or dramatic play activities. More training was also significantly correlated with a reported decrease in the use of worksheets as well as providing more appropriate staff/child interactions.

Centers that placed more importance on or had more resources for staff training had self-reported teacher practices that were significantly correlated to teachers providing more materials for language development, appropriate daily communication activities, materials to develop fine motor skills, art activities and materials and dress-up or dramatic play activities. These centers also had teachers who reported not giving children access to televisions and had a decreased use of work sheets.

**Table 30. Correlations Between Child Care Center Teachers' Education/Training and Self-Reported Quality Ratings**

	Level of education	Amount of training in last 12 months	Professional training resources available in center
More appropriate learning centers	.211**	.253**	
More language development materials	.231**	.143*	.315**
More communication activities	.309**	.179**	.167**
More fine motor manipulatives	.180**	.157**	.279**
More art activities & materials	.262**	.140*	.227**
Provide sand play indoors	.223**		.129*
Provide water play indoors	.204**		
More dress-up/dramatic play activities	.196	.139*	.248**
Children have access to TV	-.253**		-.129*
Children have access to VCR/DVD	-.229**		
Less frequent of work sheets	.180**	.218**	.229**

*Note:* \*\*:  $p < .01$ ; \*:  $p < .05$ .

### Characteristics of Child Care Expansion Program Participants

Table 31 highlights the descriptive characteristics of children and families in 2003–2004 who were recipients of First Steps child care expansion initiatives. While we report descriptives here, precautions must be taken when drawing conclusions. Out of the 11,077 cases that were in First Steps client data files, only 2,195 had data in the cohorts: 2004–2005 had 974, 2003–2004 had 1,006, 2002–2003 had 172, and 2001–2002 had 43. Eighty percent of the First Steps client data could not be linked to any of the cohort data. 2003–2004 was used for description; however, this represents less than 10% of the total number of cases and therefore may not be representative. Data from 2003–2004 was used for analysis of ABC voucher participants because it had the most complete client ABC voucher data available.

In 2003–2004, 68% of the First Steps client families were minorities, and were recipients of food stamps, Medicaid, and TANF at higher rates than their non-First Steps counterparts. They were significantly more likely to have received free and reduced lunch and to have had more handicapping conditions. Their mothers had significantly lower education levels. In these analyses it is clear that First Steps child care expansion recipients were significantly more likely than their non-First Steps peers to be Black or

Hispanic, have more health problems and handicapping conditions, and be the poorest of the poor.

**Table 31. Child Care Expansion Participants Characteristics by First Steps Funding Status (2003–2004)**

Child Characteristics	Type	<i>N</i>	% / mean
Non-White (%)	No First Steps	10048	55
	First Steps	495	68
	Statistical significance		**
Food Stamps (%)	No First Steps	8176	45
	First Steps	448	61
	Statistical significance		**
Medicaid (%)	No First Steps	11080	61
	First Steps	585	80
	Statistical significance		**
TANF (%)	No First Steps	2095	11
	First Steps	113	15
	Statistical significance		**
Foster Care (%)	No First Steps	94	0.6
	First Steps	6	0.8
	Statistical significance		—
Free Lunch Index (mean)	No First Steps	18174	1.13
	First Steps	729	1.48
	Statistical significance		**
Mother's Education (mean years)	No First Steps	15318	12.36
	First Steps	702	11.64
	Statistical significance		**
Low Birth Weight (%)	No First Steps	1609	10
	First Steps	77	11
	Statistical significance		—
# of Handicapping conditions	No First Steps	2416	13
	First Steps	140	19
	Statistical significance		**

\*\* :  $p < .01$ ; — :  $p > .10$ .

## Summary

The evidence presented in this section describes the relationship between quality enhancements, program quality, and the data on child characteristics. There is a link between the provision of quality services provided in child care and the most disadvantaged South Carolinians. Evidence showed that recipients of First Steps child care scholarships and ABC vouchers were disproportionately poor and minority. It highlighted that the First Steps goal of reaching the most at-risk children and families was being achieved.

There was limited, self-reported evidence that the programs those children might attend were improving in quality and that those improvements could be linked to participation in quality enhancement activities. The strongest evidence came from Richland County, providing specific data that showed improved quality in pre/post training assessments. Results suggested the ability of First Steps quality enhancement to improve child care quality particularly in areas related to cognitive outcomes for children – specifically listening, talking, and learning activities.

Self-reported quality ratings were significantly correlated to the teachers' levels of education, the amount of training received in the last twelve months, and the focus on training in staff meetings. Specifically,

- The higher teachers' level of education the more likely they were to report providing more developmentally appropriate learning experiences and appropriate staff/child interactions.
- The greater the amount of training the classroom teacher had received in the last twelve months the more likely they were to report engaging in more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.
- The teachers who worked in centers that placed greater importance on staff training or worked in centers that had more resources for staff training reported

providing more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.

Participants in First Steps quality-enhancement initiatives overwhelmingly reported high levels of satisfaction with the quality-enhancement programs that First Steps subsidizes.

Children and families in 2003–2004 who were recipients of First Steps child care expansion initiatives were overwhelmingly minorities, and were recipients of food stamps, Medicaid, and TANF at higher rates than their non-First Steps counterparts. They were significantly more likely to have received free and reduced lunch and to have had more handicapping conditions. Their mothers had significantly lower education levels. It is clear that First Steps child care expansion recipients were significantly more likely than their non-First Steps peers to be Black or Hispanic, have more health problems and handicapping conditions, and be the poorest of the poor.

While information presented provided support for the argument that quality enhancements improved program quality, this evidence also did not support statements of causality. Data did not allow for definitive statements or broad generalizations to outcomes benefiting the First Steps population of programs and children. It was extraordinarily clear however, that in the areas of child care expansion, First Steps is clearly serving the poorest and neediest families.

# Parenting and Family Strengthening

## Introduction

The importance of parents in children’s development and academic achievement is widely known and understood. A consistent and positive relationship between parent and child is the foundation for children’s future success. It is through consistent relationships that children develop “...self-awareness, social competence, conscience, emotional growth and emotion regulation, learning and cognitive growth” as well other developmental accomplishments (NRC, 2000, p. 265). Parents are more important to the development of a child’s readiness for school than child care and schools (Child Trends, 2003).

From the beginning parenting and family strengthening was identified as central to the mission of the First Steps initiative when the legislation identified as its goal “... to provide parents with access to the support they might seek and want to strengthen their families and to promote the optimal development of their preschool children” (Section 59-152-30). Guidelines highlighted in the legislation provide that the activities and services “must be available to young children and families on a voluntary basis and must focus on lifelong learning: (a) school readiness: (b) parenting skills: (c) family literacy: and (d) adult and continuing education” (Section 59-152-100(A) (1)).

Because of the strong relationship between parents and families and children’s development and readiness for school, First Steps has focused a significant portion of its efforts on improving parenting and family strengthening initiatives in South Carolina. The goals of First Steps to School Readiness in the area of parenting and family strengthening are to

- Increase family literacy and parent education levels.
- Improve parental employability and employment.
- Increase the effectiveness of parenting related to child nurturance, learning, and interaction, language, health and safety.

- Increase successful parenting and family literacy programs targeting, service integration, and results documentation.
- Increase parent involvement in 4K–12 education settings.

During the first 3 years of First Steps, the Child Trends (2003) evaluation documented that parenting and family strengthening was among the key strategies for promoting children’s school readiness. During fiscal year 2001–2002, 44 counties used First Steps funds to support and expand parenting programs. Programs that received support were primarily based on three nationally recognized models: Parents as Teachers (PAT), Parent-Child Home (PCH), and Family Literacy or some combination of these models. During this time other programs that received funding focused on encouraging parent-child literacy through the provision of books, parent-child reading experiences, and English as a Second Language (ESL) training (Child Trends, 2003).

Strategies adopted by First Steps to promote parent and family strengthening have included:

- Parent Education: First Steps funds programs which increase parents ability to stimulate children’s intellectual, social, and physical development with parent programs.
- Early Literacy: First Steps funds programs that enhance the abilities of families to read with their children.
- Countdown to Kindergarten: First Steps funds programs aimed at enhancing early parental involvement for children who are screened as at risk for school failure prior to kindergarten entry.

## **Evaluation Questions**

When this evaluation was planned, the intent was to follow a similar pattern in parenting and family strengthening programs that was used in the early education and child care investigations. Specifically, the intent was to ask a set of questions about program characteristics, including quality, and a set of program participant questions (characteristics and outcomes). A convergence of data problems (described below) and the high level of investment in parenting and family strengthening programs within the

First Steps initiative dictated a slightly different evaluation agenda. The focus of this chapter is almost exclusively on child outcomes.

There are important limitations of this course of analysis that were laid out in the original evaluation plan that are worth repeating here. A serious problem exists in evaluating parent programs and their impact on child outcomes because the link between parenting and family programs and child outcomes is indirect. That is, programs can impact parents' beliefs, knowledge, and practices in ways that are likely to lead to positive child outcomes, however the difficulty is that many factors can affect the size, duration, and nature of the outcomes. These could include the age of a child when his or her parent is involved in the program; the amount, frequency, and length of involvement; and the intensity and comprehensive nature of the program, as well its quality. One would not expect dramatic short-term changes in child outcomes as a result of parenting and family literacy programs. Instead, over time hopefully child outcomes should be affected by both short- and long-term changes in parent outcomes. However, these analyses just account for participation. We were unable to account for variables like the level of parental engagement in the programs or the degree of implementation of the skills they learned.

## **Methods**

The First Steps data system as well as the South Carolina data warehouse was used to conduct a secondary analysis of parent and child outcomes as well as to describe participants of the parenting and family literacy programs. Two specific analyses were conducted with parenting and family strengthening data. The first looked at the relationship between parenting and family strengthening involvement and child outcomes (grade retention, special needs placement, and SCRA scores). The second is a case study looking at short- and long-term child outcomes as well as adult parenting outcomes using data provided by the Lexington School District 3. Analysis was conducted on several data sets provided by the Office of Research and Statistics as well the state Office of First Steps and several county First Steps programs. Only the results from the most complete data set are reported. The decision to only include one was made because, while other

districts and programs generously provided data, results were consistent between them and the smaller data sets provided no new insights into the results.

### Data Problems

Many of the same problems which existed in the early education analysis were similar for evaluation of the parenting and family strengthening programs. In partnership with the Office of Research and Statistics (ORS), High/Scope worked to obtain the necessary data to evaluate program effectiveness. Problems arose during the collection phase and included:

- Data was unavailable on some of the programs that First Steps funds in parenting and family strengthening.
- The number and variety of programs funded by First Steps makes evaluation difficult. Small numbers of participants in many programs results in insufficient sample sizes for comprehensive data analysis.

Other significant problems which existed with the data and data processes were:

- During the first two years of First Steps program implementation 2000–2002, First Steps children were not identified in DOE or First Steps databases or data that was collected was incomplete. Therefore analysis specific to First Steps could not be conducted for those years.
- Due to rules and regulations regarding privacy and proprietary issues within the ORS, High/Scope was not able to verify the methods used to create the databases provided to it nor were we able to verify the accuracy of the databases provided.
- First Steps databases, collected by the ORS, have serious missing data problems. Counties have only been required to provide complete records on 50% of their clients. This policy, combined with methods used by the ORS to create unique identification numbers, resulted in uncertainty regarding the exact number of First Steps clients. This raises serious concerns regarding

whether databases provided are representative of all First Steps clients and whether results can be generalized. Analysis specific to First Steps clients must be interpreted with caution.

Due to the still relatively new nature of the First Steps initiative many of the children whose parents participated in the parenting and family strengthening programs are not yet old enough to be included in cohort data. Table 32 describes the nature of this problem. Sixty-six percent of the children whose parents participated are not yet old enough to have attended kindergarten. Four percent are too old and 8% are missing age data. Twenty-two percent were able to be identified as age-eligible in the data provided. Although 22% of identified clients are age eligible, not every eligible client had cohort data; therefore, 2249 clients with cohort data (1093 + 1156) only represent 18% (2249/12437) of the total identified clients. Additionally, not included in this table are about 7,000 adult clients (based on the data provided by ORS), who cannot be identified either because they did not have ID or their ID cannot be matched with any child clients.

**Table 32. Age Eligibility of Parenting and Family Strengthening Children**

Age Category	Identified Clients		Note
	<i>n</i>	%	
Age eligible for Cohort 3	1277	10	1093 of 1277 had cohort data
Age eligible for Cohort 4	1480	12	1156 of 1480 had cohort data
Too young for this study	8172	66	
Too old for this study	520	4	
Age information missing	988	8	
<b>Total</b>	12437	100	

An additional problem was that no statewide data system exists for collecting parenting and family literacy data. Creation of a system is underway but the current lack of a system made collection of statewide information impossible. While individual county First Steps parenting programs are collecting pre/post data on their participants, they often develop their own methods and may be more or less effective in their attempts. This lack of consistent measures and strategies makes short- and long-term evaluation difficult.

## Findings

As already stated, a difficulty that exists in evaluating First Steps parenting and family strengthening programs is the number and variety of programs invested in. In the analyses that follow, 10 types of First Steps programs are identified and listed in the tables using First Steps programmatic codes. These are:

- 201: Parents as Teachers (PAT)
- 202: Mother Read/Father Read
- 203: Parent Training
- 204: Other Family Literacy
- 205: English as Second Language
- 206: Parent/Child Home
- 207: Healthy Families
- 208: Fatherhood Initiatives
- 209: Library-Based Programs
- 210: PAT and PCH
- 211: Family Literacy Model Programs

Also identified and included in these analyses are First Steps program codes 700 (Child Care Initiatives) and 900 (Health Programs). These include:

- 709: Scholarship Initiatives
- 901: Public Health Promotion
- 902: Non-Home-Based Services
- 904: Home-Based Services
- 905: Evening Health Services

### Long-Term Outcomes for the Children of Parenting and Family Strengthening Program Participants

In the grade retention, special needs placement, and SCRA analyses, participants in these various programs were grouped into six comparison groups:

- No 4K, no FS: These are children who did not participate in either 4K or any form of First Steps programming.
- 4K, no FS 200/700/900 program: These are all the 4K participants (including First Steps 4K) who did not participate in any form of parenting or family strengthening.
- FS PAT/PCH: These are children who were enrolled in First Steps programs 201, 206, 207, and 210. These children also may or may not have been enrolled in 4K.
- FS literacy: These are children who were enrolled in First Steps programs 211 and 205. These children also may or may not have been enrolled in 4K.
- FS other parenting program: These are children whose families were enrolled in 202, 203, 204, 208, 209 programs. These children also may or may not have been enrolled in 4K.
- FS 700/900 program: These are all participants in 700 and 900 programs. These children also may or may not have been enrolled in 4K.

Table 33 describes child characteristics by First Steps parenting and family strengthening program participation. The total sample of cohort 3 consisted of 46,987 children who entered kindergarten in the fall of 2003; cohort 4 was 48,203 children who entered kindergarten in the fall of 2004. Note that missing data resulted in slight variations in sample size by child characteristics. Characteristics described included the percentages of children who were non-White, had received food stamps, Medicaid, or Temporary Assistance for Needy Families TANF, had been placed in foster care, were eligible for free or reduced lunch or had received special needs placement in

kindergarten, and those who were low birth weight. The table also indicates the mean level of the mother's education.

There were significant differences between those children who were and were not part of the First Steps parenting and family strengthening initiatives. Children from families who participated were more likely to have been minorities and received food stamps. They were also significantly more likely to have received Medicaid and TANF, been eligible for free and reduced lunch, been in foster care, had special needs placement and been low birth weight when compared to other non-parenting children. First Steps parenting and family strengthening mothers also had significantly less education than the other categories. In every category First Steps parenting and family strengthening participants were poorer and more at risk than their nonparticipating counterparts.

**Table 33. Child Characteristics by Parenting and Family Strengthening Program Type Cohorts 3 and 4**

Child Characteristics	Funding Status	Cohort 3 (2003-2004)		Cohort 4 (2004-2005)	
		<i>N</i>	<i>%/M</i>	<i>N</i>	<i>%/M</i>
Non-White (%)	No 4K, No-FS	28508	41	30189	41
	4K, No-FS 200/700/900 Program	17705	53	16906	54
	FS PAT/PCH	284	68	645	69
	FS Literacy	41	73	70	47
	FS Other Parenting Program	102	83	111	73
	FS 700/900 Program	346	52	279	69
	Statistical Significance		**		**
Food Stamps (%)	No 4K, No-FS	28509	37	30192	34
	4K, No-FS 200/700/900 Program	17705	46	16906	46
	FS PAT/PCH	284	67	645	63
	FS Literacy	41	63	70	56
	FS Other Parenting Program	102	65	111	52
	FS 700/900 Program	346	53	279	60
	Statistical Significance		**		**
Medicaid (%)	No 4K, No-FS	28509	50	30192	47
	4K, No-FS 200/700/900 Program	17705	66	16906	66
	FS PAT/PCH	284	82	645	81
	FS Literacy	41	76	70	74
	FS Other Parenting Program	102	94	111	83
	FS 700/900 Program	346	72	279	79
	Statistical Significance		**		**

*(continued)*

**Table 33. Child Characteristics by Parenting and Family Strengthening Program Type Cohorts 3 and 4 (continued)**

Child Characteristics	Funding Status	Cohort 3 (2003-2004)		Cohort 4 (2004-2005)	
		<i>N</i>	%/ <i>M</i>	<i>N</i>	%/ <i>M</i>
TANF (%)	No 4K, No-FS	28509	11	30192	9
	4K, No-FS 200/700/900 Program	17705	12	16906	10
	FS PAT/PCH	284	22	645	18
	FS Literacy	41	24	70	13
	FS Other Parenting Program	102	30	111	17
	FS 700/900 Program	346	15	279	13
	Statistical Significance			**	**
Foster Care (%)	No 4K, No-FS	28509	1	30192	0
	4K, No-FS 200/700/900 Program	17705	1	16906	0
	FS PAT/PCH	284	1	645	1
	FS Literacy	41	0	70	0
	FS Other Parenting Program	102	1	111	3
	FS 700/900 Program	346	1	279	0
	Statistical Significance		†		**
Free Lunch Index (mean) (0 = no, 1 = reduced, 2 = free)	No 4K, No-FS	28509	.92	30192	.89
	4K, No-FS 200/700/900 Program	17705	1.19	16906	1.20
	FS PAT/PCH	284	1.53	645	1.53
	FS Literacy	41	1.59	70	1.41
	FS Other Parenting Program	102	1.63	111	1.52
	FS 700/900 Program	346	1.30	279	1.36
	Statistical Significance		**		**
Mother's Education (mean years)	No 4K, No-FS	20762	12.63	21630	12.63
	4K, No-FS 200/700/900 Program	16700	12.05	16029	12.05
	FS PAT/PCH	264	11.36	604	11.36
	FS Literacy	31	10.03	63	10.03
	FS Other Parenting Program	95	11.99	99	11.99
	FS 700/900 Program	301	11.89	245	11.89
	Statistical Significance		**		**
Special Need Placement at Kindergarten (%)	No 4K, No-FS	28509	11	30192	10
	4K, No-FS 200/700/900 Program	17705	20	16906	20
	FS PAT/PCH	284	20	645	20
	FS Literacy	41	17	70	20
	FS Other Parenting Program	102	12	111	7
	FS 700/900 Program	346	19	279	14
	Statistical Significance		**		**
Low Birth Weight (%)	No 4K, No-FS	20906	9	21795	9
	4K, No-FS 200/700/900 Program	16741	10	16156	11
	FS PAT/PCH	265	10	607	11
	FS Literacy	31	10	63	13
	FS Other Parenting Program	95	13	101	9
	FS 700/900 Program	303	9	250	11
	Statistical Significance		†		**

**Note.** \*\*:  $p < .01$ ; \*:  $p < .05$ ; †:  $.05 < p < .10$ ; —:  $p > .10$ ; Free lunch index 0 = no, 1 = reduced, 2 = free; mother's education reported in mean years. Special needs placement is in kindergarten.

Analysis examined the impact of parenting and family strengthening participation on retention rates, special education placement, and SCRA scores for cohort 3 (2003-2004) and SCRA scores for cohort 4. Retention and special education placements were assessed by looking at the odds ratio of having either of these events occur for parenting groups compared with non-parenting groups. The odds ratios are based on a logistic regression analysis adjusted for 4K and for the effects of the 11 child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamps, Medicaid, and TANF status, and foster care placement) as well as school district effects. SCRA scores were analyzed using regression analysis, adjusted for 4K and for the effects of the same 11 child characteristics as well as school effects.

Analysis indicated that the children of First Steps parenting and family strengthening participants had greater odds ratios in kindergarten retention compared to the non-parenting group (see Table 34). The odds of the First Step PAT/PCH participants being retained in kindergarten was 1.82 compared to the non-parenting group. This indicates that children of First Step PAT/PCH participants had a significant 82% increase in the odds of grade retention in kindergarten. Nine percent of these children are estimated to have been retained compared to 5% of the non-First Steps parenting group. Likewise, while not statistically significant, other First Step parenting program participants had a 19% increase in the odds of retention in kindergarten. Approximately 6% of these children are estimated to have been retained. First Steps participants in family literacy programs had a 7% increase in the odds of retention in kindergarten compared to the non-parenting group.

**Table 34. Odds Ratio of Kindergarten Retention: FS Parenting vs. No-FS Parenting Programs (Cohort 3)**

Type	<i>N</i>	Odds Ratio	Estimated % of Grade Retention
No-FS (not in FS 200s/402/703/900s)	43577		5.4
FS PAT/PCH (201/206/207/210)	267	1.82**	9.4
FS Literacy (205/211)	39	1.07	5.8
FS Other Parenting (202/203/204/208/209)	101	1.19	6.4
FS Other Programs (402/703/900s)	341	.30**	1.7

**Note.** The odds ratios and estimated % of grade retention are based on logistic regression analysis, adjusted for 4K effects and 11 other child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status) and school district effects. \*\*:  $p < .01$ .

Analysis also indicated that the children of First Steps parenting and family strengthening participants had greater odds in special education placement compared to the non-parenting group (Table 35). The odds of the First Step PAT/PCH participating group having a special needs placement in first grade was 1.54. This indicates that First Step PAT/PCH participants had a 54% increase in the odds of special needs placement in first grade compared to the non-parenting group. Twenty-four percent of these children are estimated to have had special needs placement compared to 17% of the non-parenting group. Likewise, the children of other First Step program participants had a 61% increase in the odds of special needs placement in first grade. Approximately 24% of these children are estimated to have had special needs placement. First Steps participants in family literacy programs had a non-significant 7% increase in the odds of retention in grade one compared to the non-parenting group.

**Table 35. Odds Ratio of Special Need Placement in First Grade: FS Parenting vs. No-FS Parenting Programs (Cohort 3)**

Type	<i>N</i>	Odds Ratio	Estimated % of Special Education Placement
No-FS (not in FS 200s/402/703/900s)	43577		16.8
FS PAT/PCH (201/206/207/210)	267	1.54*	23.8
FS Literacy (205/211)	39	1.07	17.8
FS Other Parenting (202/203/204/208/209)	101	.19**	3.6
FS Other Programs (402/703/900s)	341	1.61*	24.5

**Note.** The odds ratios and estimated % of special education placement are based on logistic regression analysis, adjusted for 4K effects, special education placement at kindergarten, 10 other child characteristics (age, gender, minority status, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status) and school district effects. \*\*:  $p < .01$ .

As Table 36 indicates, in the areas of language, math and learning approaches, there were significant differences between the groups. For cohort 3 kindergarten scores for PAT/PCH participants in these three areas were significantly lower than non-parenting and other parenting groups. In language they score .09 below and in both math and learning approaches they were .12 and .11 below. First Steps other programs (summer programs, scholarship initiatives, and health programs) score significantly lower than all the other groups. In the categories of language, math, and learning approaches other program children scored .25, .19, and .26 below the mean. Overall, these children had much lower SCRA scores than any of their peers. There were no significant differences in social skills scores between any of the groups.

In first grade cohort 3 PAT/PCH participants continued to score below the mean. In language they scored .02 below and in both math and learning approaches they were .05 below but they are significantly lower than other comparison groups. First Steps other programs (summer programs, scholarship initiatives, and health programs) score significantly lower than all the other groups. In the categories of language, math, and learning approaches other program children scored .26, .26, and .31 below the mean. Overall, these children continued to have much lower SCRA scores than any of their peers. There were still no significant differences in social skills scores between any of the groups.

Cohort 4 children whose parents participated in parenting and strengthening programs had different results from cohort 3. In language PAT/PCH participants scored .10 above the mean and in both math and learning approaches they were .02 and .07 above. In these same three categories, participants in First Steps literacy scored well above the mean (.24, .17, and .11). Other parenting programs participants scored below the mean (-.16, -.16, -.07) and First Steps other programs (summer programs, scholarship initiatives, and health programs) were not significantly different. There are no significant differences however among the comparison groups except in language where other parenting is significantly lower than the literacy, PAT/PCH and non-parenting groups.

**Table 36. SCRA Scores by Parenting Program Type for Cohort 3 (2003–2004) and Cohort 4 (2004–2005)**

SCRA Factor	Program Type	Cohort 3 (2003-2004)			Cohort 4 (2004-2005)		
		Kindergarten		1 <sup>st</sup> Grade	Kindergarten		1 <sup>st</sup> Grade
		N	Mean Factor Score	Mean Factor Score	N	Mean Factor Score	N
Language	No-FS (not in FS	42209	.07	.04	42349	.06	
	200s/402/703/900s)						
	FS PAT/PCH (201/206/207/210)	261	-.09	-.02	573	.10	
	FS Literacy (205/211)	39	.08	.12	66	.24	
	FS Other Parenting (202/203/204/208/209)	87	.19	.14	94	-.16	
FS Other Programs (402/703/900s)	324	-.25	-.26	255	.04		
Statistical Significance		**	**		*		
Math	No-FS (not in FS	42214	.06	.04	42327	.05	
	200s/402/703/900s)						
	FS PAT/PCH (201/206/207/210)	261	-.12	-.05	574	.04	
	FS Literacy (205/211)	39	.00	.20	66	.17	
	FS Other Parenting (202/203/204/208/209)	87	.08	.03	94	-.16	
FS Other Programs (402/703/900s)	324	-.19	-.26	255	.05		
Statistical Significance		**	**		—		
Approaches to Learning	No-FS (not in FS	42243	.04	.05	42354	.05	
	200s/402/703/900s)						
	FS PAT/PCH (201/206/207/210)	260	-.11	-.05	575	.07	
	FS Literacy (205/211)	39	.03	.18	66	.11	

*(continued)*

**Table 36. SCRA Scores by Parenting Program Type for Cohort 3 (2003-2004) and Cohort 4 (2004-2005)**  
(continued)

SCRA Factor	Program Type	Cohort 3 (2003-2004)			Cohort 4 (2004-2005)			
		Kindergarten		1 <sup>st</sup> Grade	Kindergarten			
		N	Mean Factor Score	Mean Factor Score	N	Mean Factor Score		
Social	FS Other Parenting (202/203/204/208/209)	89	.19	.08	75	.08	94	-.07
	FS Other Programs (402/703/900s)	324	-.26	-.31	291	-.31	255	.04
	Statistical Significance		**	**		**		—
	No-FS (not in FS 200s/402/703/900s)	42243	.03	-.00	37556	-.00	42354	.02
Social	FS PAT/PCH (201/206/207/210)	260	.01	.07	211	.07	575	.08
	FS Literacy (205/211)	39	.32	.05	31	.05	66	.05
	FS Other Parenting (202/203/204/208/209)	89	.10	.17	75	.17	94	-.20
	FS Other Programs (402/703/900s)	324	-.01	-.06	291	-.06	255	.04
Statistical Significance		—	—		—		—	

**Note.** The scores are based on regression analysis, adjusted for 4K effects and 11 other child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status) and school effects. \*\*:  $p < .01$ ; \*:  $p < .05$ ; — :  $p > .10$ .

As a whole, analysis of First Steps parenting and family strengthening programs indicated that these programs are clearly targeting the most vulnerable families. In every category First Steps parenting and family strengthening participants were poorer and more at risk than their nonparticipating counterparts. The data however does not consistently indicate significant gains for most children. In fact, for some categories child participation appeared to increase the odds of grade retention and special needs placement and decrease SCRA scores. It is important to keep in mind that the families in these analyses (particularly PAT/PCH and First Steps other programs) are significantly poorer and more at-risk populations who may, because of the nature of their difficulties, experience more negative outcomes. The only programs with consistent positive (though not statistically significant) results were the family literacy programs English as a Second Language (205) and Family Literacy Model Programs (211). The sample sizes for these programs were small and not reliable so results should be interpreted with caution.

#### Lexington County School District 3 Case Study

Lexington County School District 3 is a Title 1 district that has been tracking children whose parent's participated in First Steps parent education programs since 2001–2002. Analysis was conducted to determine long-term child outcomes using data from the district, the South Carolina Data Warehouse, and the Department of Education.

Table 37 describes the child characteristics of Lexington 3 First Steps parent education program participants. The total sample consisted of 565 children. Characteristics described (and controlled for in analyses) included the percentages of children who were non-White; had received food stamps, Medicaid, or Temporary Assistance for Needy Families (TANF); had been placed in foster care; were eligible for free or reduced lunch; had received special needs placement in kindergarten; and were low birth weight. The table also indicates the mean level of the mother's education.

There were significant differences between those children whose parents had and had not participated in the Lexington 3 First Steps parenting initiative. Children from families who participated were more likely to have been minorities and received food stamps. They were also significantly more likely to have received Medicaid and TANF,

to have been eligible for free and reduced lunch, and to have had special needs placement than non-parenting program children. First Steps parenting mothers also had significantly less education than those in the other categories. In all but two categories First Steps parenting children were poorer and more at risk than their nonparticipating counterparts.

**Table 37. Child Characteristics by Type for Lexington County School District 3 Case Study**

Program Type	Child Characteristics								
	Non-White (%)	Food Stamps (%)	Medicaid (%)	TANF (%)	Foster care (%)	Free lunch index	Mother's education	Kdg. Special needs placement	Low birth weight (%)
FS parenting program	87	78	94	31	0	1.77	11.16	17	12
4K	44	43	62	10	1	1.09	12.42	26	9
No 4K	44	45	60	20	1	1.10	12.19	15	9
Statistical significance	**	**	**	**	—	**	**	*	—

**Note:** For the 3 types of parenting programs (FS parenting program, 4K, and no 4K):  $n = 77$  (2001–2002), 281 (2002–2003), and 207 (2003–2004). Free lunch index 0 = no, 1 = reduced, 2 = free; mother's education reported in mean years.

Analysis examined the impact of parenting participation on grade retention rates, special education placement, and SCRA scores for Lexington 3 children who entered kindergarten in the fall of 2001, 2002, and 2003. Retention and special education placement for grades one, two, and three were assessed. The odds ratios are based on logistic regression analysis, adjusted for the effects of 4K participation as well as other 11 child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status).

Table 38 shows that the odds ratio of the parenting participants being retained at grade one was .40 compared to the non-parenting group. This indicates that children of

parenting participants had a 60% decrease in the odds of grade retention in first grade. In grade two, parenting participants had a slightly increased odds ratio of retention. In grade three, program participants had a 61% decrease in the odds of being retained. None of these analyses were significant, indicating that participation in the parenting program had no effect on children's retention. While intuitively it would appear that a 60% reduction in grade retention should be significant, it may be the small sample sizes are simply not large enough to pick up significant effects.

**Table 38. Lexington County School District 3 Odds Ratio of Grade Retention: First Steps Parenting Program Participants vs. Non-Participants by Grade**

Grade	Cohorts Included	N		Odds Ratio	Statistical Significance
		FS	Non-FS		
G1	2001–2002, 2002–2003, 2003–2004	66	351	0.40	—
G2	2001–2002, 2002–2003	45	223	1.13	—
G3	2001–2002	27	113	0.39	—

*Note.* —:  $p > .10$ .

**Table 39. Odds Ratio of Special Education Placement: First Steps Parenting Program Participants vs. Non-Participants by Grade**

Grade	Cohorts Included	N		Odds Ratio	Statistical Significance
		FS	Non-FS		
G1	2001–2002, 2002–2003, 2003–2004	66	349	1.19	—
G2	2001–2002, 2002–2003	45	221	1.56	—
G3	2001–2002	27	113	0.88	—

*Note.* —:  $p > .10$ .

Table 39 shows the odds ratio of the parenting participants having a special needs placement at grade one was 1.19 compared to the non-parenting group. This indicates that children of parenting participants had a 19% increase in the odds of special needs placement in first grade. In grade two, parenting participants also had 56% increase in the odds of special needs placement. In grade three, program participants had a 12% decrease in the odds of being placed. None of these analyses were significant, indicating that participation in the parenting program had no effect on children's special education placement.

As in previous analyses, the differences in academic achievement between those children whose parents had and had not participated in the Lexington 3 First Steps parenting initiative were assessed using regression analysis of SCRA scores for all the comparison groups (Table 40). Regression analysis, adjusted for 4K effects and 11 other child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status) was used. While analyses indicated that First Steps children scored higher than their non-First Steps peers in kindergarten on the language, math and learning approaches subscales, none of the differences were statistically significant.

**Table 40. Lexington 3 SCRA Factor Scores: First Steps Parenting Program Participants vs. Non-Participants**

Grade	Factor	Cohorts Included	N		Factor Score		Statistical Significance
			FS	Non-FS	FS	Non-FS	
Kindergarten	Language	2001–2002 2002–2003 2003–2004	62	346	.21	.11	—
	Math	2001–2002 2002–2003 2003–2004	62	344	.19	.05	—
	Approaches to Learning	2001–2002 2002–2003 2003–2004	62	346	.05	-.06	—
	Social	2001–2002 2002–2003 2003–2004	62	346	-.04	.13	—
Grade One	Language	2001–2002 2002–2003	40	203	-.06	.09	—
	Math	2001–2002 2002–2003	40	203	-.01	.08	—
	Approaches to Learning	2001–2002 2002–2003	40	203	-.15	-.02	—
	Social	2001–2002 2002–2003	40	203	.03	.15	—

*Note.* —:  $p > .10$ .

Third-grade PACT scores were analyzed for differences between those children whose parents had and had not participated in the Lexington 3 First Steps parenting initiative. As shown in Table 41, children of First Steps participants had higher scores on the language component and lower scores on the math component.

**Table 41. Grade Three PACT Scores: First Step Parenting Program Participants vs. Non-Participants by Grade**

Factor	Cohorts Included	N		Factor Score		Statistical Significance
		FS	Non-FS	FS	Non-FS	
ELA	C1	21	93	309.5	308.5	—
Math		21	93	306.6	309.2	†

*Note.* The scores are based on regression analysis, adjusted for 4K effects and 11 other child characteristics (age, gender, minority status, special need placement at kindergarten, low birth weight, mother's schooling, free lunch index, food stamp status, Medicaid status, TANF status, and foster care status). †:  $.05 < p < .10$ ; —:  $p > .10$ .

Finally, achievement was measured using the Parent Knowledge Survey (PARKN), the Test of Adult Basic Education (TABE) (CTB/McGraw-Hill), and the PPVT. The PARKN is a non-standardized created instrument the district uses to assess parent knowledge to plan particular interventions and lessons for parents. The TABE measures achievement of basic skills and is used to assess caregivers' reading level compared to grade levels (grade seven, grade eight, etc.). The PPVT is administered to the child and is a direct measure of vocabulary size; the order of the item difficulties is reflective of the frequency of words used in spoken and written language. Lexington 3 conducted data included pre- and post-assessment information.

Paired t-test analysis was used to measure change in scores. Data was available on the PARKN for years 2002–2003, 2003–2004, and 2004–2005. TABE results were available for 2001–2002, 2002–2003 and 2003–2004. Data on the PPVT was only available for 2004–2005. Results were mixed and inconsistent. The PARKN results indicated positive increases in scores for 2 of the 3 years, however only one year was significant. TABE scores also indicated significant increases in 1 of the 3 years and 1

year showed a significant decrease in scores. PPVT scores indicated significant gains for children of parenting program participants.

**Table 42. Lexington 3 FS Parenting Program: Mean Scores Pre- vs. Post-Tests**

Type of Test	<i>N</i>	Pre-Test	Post-Test	Statistical Significance
PARKN (2003)	33	77.1	82.7	**
PARKN (2004)	83	76.9	78.9	—
PARKN (2005)	53	76.9	75.7	—
TABE (2002)	95	7.41	8.62	**
TABE (2003)	54	9.86	10.43	—
TABE (2004)	78	9.16	8.63	†
PPVT (2005)	30	3.33	4.01	**

*Note.* \*\*:  $p < .01$ ; †:  $.05 < p < .10$ ; —:  $p > .10$ .

## Summary

As discussed earlier, a challenge to evaluating parenting and family strengthening programs and their impact on child outcomes is the indirect link between parenting and family programs and child outcomes. To determine long-term child outcomes specific and consistent data needs to be collected across all program types so that comparisons can be made between programs regarding the efficacy of participation. Additionally pre- and post-data must be collected statewide. This does not occur with First Steps parent and family strengthening programs. Analysis was limited by the lack of data on programs and participants. Of particular concern is the inability to account for program content, levels of program quality, and parent outcomes like implementation of skills learned.

Data that was available indicated that these programs are clearly targeting the most vulnerable families. In every category First Steps participants were poorer and more at risk than their nonparticipating counterparts. The evidence presented here does not consistently indicate significant enhancements for most children of the participants. In fact, some of the evidence suggests a negative relationship between program participation and child outcomes. The reason for this may lie in the fact that many of these programs

are working with families and children who, because of their difficult situations, experience more negative outcomes. The two programs that consistently demonstrated positive outcomes for children were the family literacy programs English as a Second Language (205) and Family Literacy Model Programs (211). Reasons for this may be in the comprehensive nature of family literacy model programs which require activities in four key components: child care, adult education, parenting, and parenting and child interaction. It should be kept in mind, however, that sample sizes were small and not very reliable.

Data from the Lexington County School District 3 also revealed that there are significant differences in the descriptive characteristics between the two groups. Families who participated were more likely to be poorer and more at risk than their non-participating counterparts. Analysis of long-term outcomes indicated no advantage to children of participants in the areas of grade retention, special education placement, and SCRA. PACT scores were improved in the math factor. Parents' participation had mixed results on both the PARKN and the TABE while 1 year of child PPVT data showed significant gains.

# The Added Value of First Steps

## Introduction

One of the most important components of the First Steps initiative is that the results are achieved through partnerships. Partnerships at the state and local levels and among public and private entities are the cornerstone of the First Steps initiative. The original legislation in Section 59-152-21 states:

The purpose of the First Steps initiative is to develop, promote, and assist efforts of agencies, private providers, and public and private organizations and entities, at the state level and the community level, to collaborate and cooperate in order to focus and intensify services, assure the most efficient use of all available resources, and eliminate duplication of efforts to serve the needs of young children and their families.

Explicit in this legislative statement is a public policy focus on efficiency and effectiveness. Implicit is an assumption those goals are best achieved by giving local communities the discretion to determine their greatest needs and how funds will be used. The structure of First Steps relies on what is called by policy analysts “bottom-up” (as opposed to top-down) decision making. Advocates of this approach argue that it leads to greater efficiency and effectiveness. It is also argued that it supports innovative problem solving. Contrastingly, a “top-down” perspective argues that initiatives like First Steps can lead to inconsistent services and waste. Both sides agree that as policies go from ideas to actions, the decisions made on the ground mean the success or failure of a program (e.g. see Pressman and Wildavsky, 1973; Lipsky, 1980; Peterson, Rabe, and Wong, 1986; Wilson, 1989). The essential difference is that one side sees the key to success in local control and discretion while the other values a centralized decision-making structure.

For First Steps, the question becomes, has a structure of local decision making and interagency cooperation lead to efficiency, effectiveness, and innovation in the provision of early childhood care and education services across the state? Deeply

connected to this question is the fact that First Steps is a funding stream. What is, in fact, the added value of channeling funding first through the state and local First Steps offices instead of investing directly in the agencies implementing the programs that First Steps funds support?

The importance of this “value-add” question became increasingly clear over time as High/Scope gained a nuanced understanding of the political context of the initiative. It also became clear that this evaluation would be incomplete without a focus on the unique relationships that have developed over the course of the life of First Steps, particularly during the last three years. As a result, evaluation questions and methods were developed to address this area.

### **Evaluation Questions**

Research questions were developed that addressed the unique issues related to county partnerships. They are:

1. How do county First Steps boards of trustees operate? What is their size and methods of communication? What types of assistance do they provide to Executive Directors (EDs)?
2. What is the nature of the relationships between county First Steps offices and the state First Steps office?
3. Does First Steps operate differently than other state departments or programs?
4. How does the existence of First Steps influence how other state departments or programs operate?

These questions were designed to gather information on whether or not the day-to-day operations of First Steps state and local staff and board members have created a well-run bureaucracy. They were also designed to determine if the structure of the initiative has led to new, better ways of providing services to South Carolinians.

## Methods

Several surveys were created for different groups of First Steps stakeholders—First Steps EDs, local county Board Chairs (BCs), and individuals from non-First Steps departments or organizations. County EDs and local BCs were interviewed by phone. A Web-based survey was used to reach non-First Steps respondents.

### Data Problems

The central limitation of the data presented here is that it is overwhelmingly based on First Steps affiliated respondents. While EDs and BCs offered both praise and criticism of First Steps' operations and contributions, their responses must still be considered self-reported (and therefore potentially skewed) data. There is some information reported here from non-First Steps respondents. The caveat is that the sample size of 28 respondents is quite small in the context of the many individuals and programs First Steps has touched in some way. It was expected that non-First Steps survey respondents would be those with strong opinions (either positive or negative) about the program, making it difficult to generalize from their responses. The small sample size just exacerbates that challenge. Nevertheless, data from all of the respondents is described. Taken as a whole, similar themes emerge that do not lead to conclusive answers but do highlight areas worth more in-depth consideration at a later time.

### Sample

Forty-four EDs were interviewed. Thirty-eight (86%) are full-time and 6 (14%) are part-time First Steps employees. The average length of time they have been an ED is 3.4 years with a range of 1 (new directors) to 72 months. They are predominantly African-American (57%) and female (77%) and work an average of 45 hours per week. The directors are a highly educated group with 43 (98%) having obtained a bachelor's degree or higher and 84% having attended graduate school or having earned a degree higher than a bachelor's degree. They bring a great variety of professional expertise to their current employment and immediately prior to their current positions most were in education (39%), social services (34%), or business (6%). At some point in their careers,

twenty-six (59%) had been public school teachers or administrators, 18 (41%) had been family literacy or parent educators, and 9 (20%) had been either a child care provider or administrator.

County First Steps offices are staffed on average by 2.4 employees, 1.6 are full-time and 0.7 are part-time. The vast majority of these staff members have at least a bachelor's degree, 26% have a teaching certificate and 23% have a degree in early childhood education. The staff's ethnicity is 54% White, 42% African-American, and 3% Hispanic/Latino.

Forty-five BCs were interviewed. The average length of time they have been a BC is 2.10 years with a range of 4 to 72 months. They are predominantly White (51%) and female (64%) and volunteer on the First Steps initiative an average of 3.5 hours per week. Prior to becoming BC they had served on their First Steps County Board for an average of 2.9 years. The BCs are a highly educated group with 39 (87%) having obtained a bachelor's degree or higher and 75% having attended graduate school or having earned a degree higher than a bachelor's degree. They bring a great variety of professional expertise to BC positions with the most having been employed at some point in their career in education (56%), child care (16%), public school administration (22%), or as a parent educator (27%).

Among the twenty-eight non-First Steps respondents, the majority were women (81%) and White (78%). Eighty-five percent had earned a bachelor's degree or higher.

## **Findings**

### Greatest Value or Asset of First Steps

Executive directors and county board chairs offered a wealth of anecdotal evidence about what they considered the greatest asset or value-add that First Steps has brought to their counties. They commented on several topics:

- Increased awareness of the importance of school readiness
- Increased number of children who are ready for school
- Strengthening of parenting skills

- Increased parental involvement in the schools
- Collaboration created between local agencies and organizations
- Increased access to quality child care and 4K

### Awareness

Nearly 75% of EDs cited increased community awareness about early childhood education as the greatest value of First Steps. About a quarter of BCs also expressed this sentiment. “There’s been a spotlight shown on the early childhood arena. Finally. . . finally,” said one ED. Another said First Steps is “changing the culture of how people view education in general and preschool in particular.”

One BC said the funding that has come with First Steps has been the key to focusing attention on the importance of school readiness: “Prior to First Steps, the only people who really thought about it were educators. Once you put money behind it, people are going to pay attention to it.” Another BC said although there were preschool programs like Head Start before First Steps, the issue of getting children ready for school was rarely discussed in the community. That has changed in the last several years, she said. “It’s part of every day conversation now.” The positive consequences stemming from increased awareness about early childhood education were thought to include high community participation in First Steps programs and support of First Steps by business and community organizations.

One ED said she had expected approximately 250 children to sign up for Imagination Library in its inaugural year. Instead, 400 children enrolled in the program through First Steps: “Now, it’s like everybody knows who we are.” Another ED said the rising awareness about early childhood education has manifested itself in the business community’s willingness to partner with First Steps. In that county, business leaders see First Steps programs as worthwhile and trust that the organization will spend their donations wisely.

### Increased Number of Children Ready for School

About half of First Steps county BCs and 16% of county executive directors said the program has gotten more children ready for school or resulted in lower retention rates in kindergarten and first grade. Board chairs and EDs credited the increase in school readiness to programs such as Countdown to Kindergarten, Parents as Teachers, Imagination Library, and child care quality enhancements. Often, the improvements have been documented by readiness assessments taken before children start kindergarten. For example, one BC said, “We can see the difference in our children. We do a pre-test and post-test with the children and their parents. . . in our day care.”

One ED cited the significant improvements seen on post-tests taken by four- and five-year-olds who participated in a month-long summer program with a student-to-adult ratio of 4 to 1. In the same vein, a BC mentioned that their county had recently begun to see evidence that First Steps is improving school readiness as test scores are slowly rising for kindergarteners, and first- and second-graders.

Several county First Steps officials also cited anecdotal evidence offered by early elementary teachers about improved school readiness. For example, one BC recounted hearing from local teachers that First Steps children regularly come to school asking to look at books and “wanting to know if they can come to school on Saturday.” Another BC, who is also a teacher, said she’s noticed that students who have gone through First Steps programs have a better grasp of the basics. “They participate more. Their social skills are better. They pay attention to stories and ask questions whereas before they might just sit there,” she said.

In some counties, the perceived changes are not exclusive to kindergarten and first grade. One BC mentioned the positive feedback he has heard from second- and third-grade teachers, who say the children who have participated in First Steps programs are better organized and have better social interactions than they have seen previously in at-risk students. Additionally, he said, teachers cite increased parity in terms of academic readiness between those who have gone through First Steps and their more advantaged peers.

### Strengthening of Parenting Skills and Increased Parental Involvement in Schools.

Fifty percent of First Steps executive directors and 30% of county board chairs stated that the program has strengthened parenting skills and prompted more parents to become involved in their children's education.

One ED said she regularly fields calls from parents of newborns asking what programs they should get their children involved in to ensure they are ready for school. Another ED said First Steps has helped parents realize the importance of early childhood education: "They're able to connect the now with the future." A third ED talked about being stopped at Wal-Mart by parents curious about First Steps programs. One mother told this director that until she participated in the Parents as Teachers program, she had never visited her child's school because she had hated school herself. First Steps parenting programs have helped parents realize and embrace their role as their child's first teacher. Prior to First Steps, one BC said, "Very little was being taught at home."

An ED told the story of a mother who revealed to a parent educator that she did not read books to her young child because she herself was illiterate. The educator showed the woman how to turn the pages of board books and talk with her child about the pictures so they could still "read" together.

Several EDs and BCs said they have heard parents say they are more likely to visit their children's school, talk to their child's teacher, volunteer in their child's classroom, or join the PTA since going through First Steps parenting programs. Specifically, one BC said her county's Parents as Teachers program has made parents more confident about becoming active in the schools. "They would have never been involved in their child's education if they didn't have the confidence," she said.

A few EDs said First Steps parenting programs have helped reduce cases of childhood abuse and neglect. One ED attributed this to parents' increased awareness about what is developmentally normal for children. For example, he said one parent learned from a First Steps parent educator that when her toddler throws a temper tantrum, it is a common behavior and not an attempt by the child to make her angry. Another ED noted that abuse and neglect rates decreased by one-third in her county after First Steps offered an intensive home-based parenting education program.

In some counties, parenting programs have encouraged parents to return to school themselves. One ED said a number of teen mothers decided to earn their GEDs and even go on to college after joining the county's First Steps parenting program: "They want to make a better life for their children."

#### Increased Access to Quality Child Care and 4K

About a third of the county EDs described improved access to child care and increased 4K offerings as two of the greatest benefits of First Steps. One ED noted that before First Steps began offering low-income families help covering child care costs, such aid was available only to those receiving Temporary Assistance for Needy Families (TANF). Another ED said local parents constantly contact the local First Steps office seeking one of about two-dozen child care scholarships available. A First Steps Board Chair noted that many children who use vouchers were previously in the care of relatives who were sometimes illiterate and unable to work with them on reading or other learning activities. The increase in half-day and full-day 4K classes has also been a boon to local families. One ED said before First Steps was launched, there were 200 county children on the waiting list for 4K classes. After First Steps helped add additional classes around the county, every eligible child was served. Another ED said First Steps helped one county school district add new 4K classrooms and helped another district lengthen its half-day 4K to a full-day program. In a county where poverty and unemployment are high, the BC said 40 more children are served by the two additional half-day 4K classes that First Steps helped create.

#### Collaboration Between Local Agencies and Organizations

Almost 30% of EDs and BCs cited the community collaborations that have arisen from First Steps as one of the program's most valuable aspects. One ED described the impact of First Steps by saying, "We bring people together." A board chair described it this way ". . .we tore down the 'turfish' issues and built many partnerships within the community and we now offer more services with the partnerships." Another said, "[It's]

strengthened what our county can do for children. A lot of times before, people were doing the same services for children.”

Executive directors and board chairs described collaborations which exist with local school districts, libraries, Head Start programs, and county social services agencies. In some counties, there are also partnerships with local churches, chambers of commerce, and hospitals and universities. Interviewees said such collaborative relationships allow them to maintain programs that would have collapsed due to budget cuts if they remained exclusively with First Steps. One ED said her office initially launched Imagination Library in the county, but no longer needs to provide funding because multiple community partners have begun to cover the cost. First Steps has helped increase participation in programs that other community organizations previously operated alone. For example, one ED said when First Steps joined forces with the local school district to run an existing parenting program, membership was expanded to include county parents whose children were not yet in school. More than 150 additional families joined because of this change.

Executive directors and board chairs also mentioned that collaborations have reduced tensions that used to exist between community agencies and organizations. One BC talked about how Head Start staff members were initially suspicious of First Steps when the two agencies first discussed the possibility of creating a joint 4K classroom. Head Start officials feared that First Steps wanted to put them out of business or take away their students, however once the collaboration got off the ground the distrust eased.

All of these positive impressions of the impact of First Steps at the local level must be understood in the context of how local and state staff and board members work with each other and with non-First Steps entities.

### Communication at the Local and State Levels

County boards average 24.6 members (range 14–36). These groups meet primarily 6 times per year (52.3%) but have a great deal of communication between meetings. The majority of EDs report communicating with their local boards on a weekly basis (64%) through a variety of methods such as e-mail, phone and face-to-face conversations. Executive directors report that their First Steps boards provide guidance,

support, and opinions on a number of topics such as community needs assessments (98%), budgets (100%), connections to local and/or state politicians (89%), and connections to state and/or local business leaders (89%).

The reported helpfulness of county boards of trustees was mixed. Seventy-seven percent reported their boards as being very helpful with annual budgets and 64% believed they were very helpful with community needs assessments. Boards were sometimes considered helpful with state-level reporting and accountability (48%), providing connections to business leaders (39%) and politicians (48%). Some of the EDs cited boards as being particularly helpful in funding or fund-raising (25%).

Most BCs report communicating directly with their fellow board members on a monthly (56%) or weekly (42%) basis. Entire boards generally meet together either monthly (38%) or bi-monthly (49%). Board chairs state that the county boards provide support, guidance, and opinions on the day-to-day operations of their local First Steps 69% of the time. They also report having input on budgets (96%) and the community needs assessments (100%). They assist in the clarification of First Steps rules and regulations (84%), help with state level reporting (82%), and they provide connections to state and local business leaders (96%) and politicians (93%). They overwhelmingly believe their local First Steps staff is receptive to board guidance, support and input (87%).

When asked to describe the duties that BCs believe are their responsibility they focused on 6 major themes:

1. Ensuring board meetings run smoothly and that board members are involved and engaged in First Steps was mentioned by 51% of the BCs. This included keeping board members up-to-date on developments at both the state and local levels.
2. Day-to-day fiduciary responsibilities were mentioned by 47% of the chairs. They highlighted responsibilities such as dealing with budgets, fundraising, and providing their signature on checks.
3. Acting as a liaison was mentioned by 44% of the BCs. They believed it was their responsibility to make connections to a variety of parties, including other members of the local county board, to their communities, and to the state legislature.

4. Working with and supporting the EDs and/or local First Steps staff was highlighted by 44% of the chairs.
5. Representing or advocating for First Steps was described by 27% of the BCs. They included representing First Steps in their local communities, to the state legislatures, and to the state First Steps board.
6. Providing day-to-day support and assistance to the ED in his/her county was also cited by BCs as a duty.

The largest percentage of EDs report communicating directly with the state Office of First Steps on a varying basis (39%) while others reported doing so monthly (18%), weekly (36%), and daily (9.1%). These communications are predominantly done through e-mail (98%) or by phone (98%). Topics of conversation are most often state-level reporting and accountability (98%), annual budgets (96%), or clarification of First Steps rules and regulations (91%).

Executive directors reported the helpfulness of the state First Steps staff on a variety of issues to be mixed. Sixty-three percent find them to be very helpful on day-to-day operations and annual budgets (66%), clarification of rules and regulations (64%), and state-level reporting and accountability (64%). EDs reported the state First Steps office is less helpful when assisting them with connections to local or state business leaders (20%), politicians (25%), or assisting with their community needs assessments (32%).

When asked about the greatest problem or difficulty encountered while working for First Steps nearly two-thirds of county EDs cited the state office as one of the greatest problems they'd encountered. Specific complaints include constantly changing requirements and procedures, poor communication by state staff, confusing state rules, insufficient planning by state First Steps officials, lack of state support for county staff, budget reductions, state staff transience, and excessive red tape.

Several directors said such problems have caused last-minute or after-the-fact changes locally that have hurt the credibility of First Steps in the community. One ED talked about the fall-out from a state Office of First Steps decision mid-way through the program year requiring local vendors to provide more data than was mandated in their

contracts. “They tend to distrust First Steps,” she said. “[They’ll say], ‘Oh, First Steps did it again.’” Another ED said of mid-stream changes by the state, “It hurts our integrity here in the county.”

Other EDs talked of overdue or unreturned phone calls from state office staff members or the difficulty they had in getting clear and relevant answers to their questions. One director described the state office staff as competent but over-worked. Several directors said the lack of clear direction from the state had often forced them to spend valuable time redoing reports. One director wished state board meeting minutes were distributed to county directors promptly and that the state First Steps web site was comprehensive, up-to-date and interactive.

More than 20 percent of directors said the state office should offer more help to local First Steps staff members. The types of assistance sought include ED training, grant-writing help and technical assistance. One director who expressed the desire for training said, “It’s like a moving train and you just jump on.” Another ED lamented the loss of technical assistance and oversight visits from the state staff.

A handful of EDs complained about what they perceived as excessive red tape and bureaucracy within First Steps. For example, one director said the amount of paperwork required by the state consumes time that could be used for local fund-raising or program development. Another said local partners sometimes question whether they should get involved because there are so many strings attached to First Steps funding. A third director complained of the slow reaction time of the state office, saying, “They’ve created a bureaucracy, so they are very bogged down. We have to act and react immediately in the counties.”

Most BCs report communicating with the state Office of First Steps on a varying basis (54%), while others reported doing so monthly (7%), weekly (6%), and quarterly (11%). Topics of conversation with the state office are most often for state-level reporting and accountability (89%), annual budgets (77%), clarification of First Steps rules and regulations (69%), or the community needs assessment (69%).

### Needs Assessments, Budgets, and Funding

When questioned about their budgets and funding, 71% of the EDs reported completing their last needs assessment less than 6 months prior to their application for funding for the 2004–2005 fiscal year. The top three assessment needs were reported (in order of importance) as child care (quality enhancements, training, and scholarships/vouchers), parenting and family literacy programs, and expansion of preschool experiences.

Thirty percent of EDs reported spending less than 25% of their budget on their highest needs assessment item. Additionally, forty percent of EDs reported spending less than 25% on the second highest identified need in their county, and 80% reported spending less than 25% on their third highest identified need. In one instance, First Steps rules and regulations prohibited spending in an area identified as a top need. Eight counties were unable to find local partners to meet the need. The two other reasons most often cited for not funding top needs assessment areas were that the board identified a different set of priorities and decided to invest in several different strategies instead of concentrating on just a few.

Leveraging other sources of funding is an important budget task of the EDs in each county. While 66% reported obtaining grants from private foundations and 58% reported obtaining gifts from individuals to provide services, in individual interviews EDs reported varying rates of success in leveraging financial support from their communities. Some said they rarely received community donations while others said they've enjoyed generous support from local businesses and organizations. Even among EDs who judged their counties successful in leveraging financial support, there were significant differences in the amount of financial assistance they generated. For example, one ED said she had garnered \$5,000–\$6,000 in private business and foundation support the previous year while another cited a foundation award of \$700,000 and a grant award of \$1 million.

One ED, who had experienced difficulty raising private money, expressed frustration when she said, “You can’t squeeze blood from a turnip.” Another said, “It’s just budgets are tight all around.” Several EDs cited their county’s small population size,

poverty, or lack of industry as the main reasons for lagging private support. Indeed, success in leveraging financial support appears to be related both to county poverty rates and population size. Among EDs in the state's 23 most populous counties, 9 reported significant success in leveraging support from the community while in the 23 least populous counties, only 6 reported significant successes. The numbers are farther apart when compared by poverty rate. While 13 EDs in the 23 least poverty-stricken counties reported significant success leveraging support, only 2 in the 23 most poverty-stricken counties reported such success.

When resource-poor counties do receive private assistance, it is relatively modest. Local businesses sometimes donate door prizes for First Steps events or schools donate space for an office or classroom program. One ED from a poor, rural county said the financial help she gets from the community is typically in the form of a \$25 check. Another ED recounted how a fund-raising letter to 45 community organizations brought in only \$150. A third ED, who spoke of relative success in leveraging financial support, speculated that donations would be pouring in if her county had a strong economic base.

Several EDs said they wanted the state First Steps office to offer more guidance and leadership on private fund-raising. One said she'd like to see the state create a resource development plan to help counties raise private money and write grants. "They don't have a plan or vision, yet we're supposed to have one ... We're not being given the tools we need to do it," she said. Some EDs said the state office should raise more private money and allocate the bulk of it to counties with limited fund-raising capabilities.

Not surprisingly, the inability to raise private funds affects the depth and breadth of First Steps programming in the counties. During interviews, a few directors recalled their inability to capture state lottery money because they were not able to raise the required matching funds. One ED cited the general shortage of funding as the greatest problem he had encountered while working with First Steps. Another said she wanted to offer more programming but does not have the resources to do so.

### First Steps Rules and Regulations

Executive directors were questioned about the rules and regulations they must follow to be part of the First Steps initiative. The questions focused on the rules and

regulations related to the acquisition of funds, the application of the rules, the clarity of the rules, and the consistency of enforcement. Among EDs

- 86% reported that the rules and regulations regarding how to acquire funds are clear.
- 74% reported the First Steps office applied these rules and regulations consistently.
- 86% reported rules and regulations regarding how funds can be spent are clear.
- 77% reported these rules are applied consistently.
- 70% believed the rules and regulations for reporting and accountability are clear.
- 75% reported these rules are applied consistently.

As in many state or federal programs, creating reports takes up a significant proportion of time for EDs. They reported spending between 5% and 75% of their time on reporting activities. The differences were generally attributable to the size of the staff working with the EDs. In some counties with a staff of none, one or two, EDs must spend considerably more time on reporting activities than do others with more help. Eighty-nine percent of EDs use the reports generated for state level reporting/accountability in their local administrative planning.

Board chairs were also questioned about the rules and regulations the county must follow to be part of the First Steps initiative. Among BCs

- 80% reported the rules and regulations regarding how to acquire funds are clear.
- 88% reported the First Steps office applied these rules and regulations consistently.
- 93% reported rules and regulations regarding how funds can be spent are clear.
- 93% reported these rules are applied consistently.
- 93% believed the rules and regulations for reporting and accountability are clear.
- 91% reported these rules are applied consistently.

### Comparisons to Non-First Steps Government Departments and Programs

Executive directors and non-First Steps respondents were asked to compare First Steps to other government departments and programs on a range of traits. Among the 44 EDs interviewed, 10 (23%) reported that they had experience working in other South Carolina state departments or systems. Tables 43, 44, and 45 below detail the responses from those 10 EDs and the 28 non-First Steps respondents.

**Table 43. EDs' Comparison of First Steps to Other Government Departments and Programs**

Characteristic	Compared to other government departments or programs, First Steps is		
	Better	Worse	Same
Communication between state and local staff	40%	20%	40%
Available resources	50%	20%	30%
Creative problem solving	40%	20%	40%
Clear rules and regulations	20%	20%	60%
Consistent application of rules and regulations	10%	10%	80%
Fair rules and regulations	11%	22%	67%
Staff commitment to mission	40%		60%
Flexible use of resources	60%	10%	30%

Overall, half of the time EDs indicated that there was no qualitative difference between their prior experiences in other agencies and their First Steps experiences. In particular, they saw essentially no difference in the clarity, consistency of application, or fairness of the rules and regulations within First Steps as compared to other agencies. Thirty-four percent of the time EDs rated their First Steps experience as better. First Steps were seen more favorably by EDs when it comes to the resources available to implement programs and the ability to use those resources flexibly.

Non-First Steps respondents were asked two sets of questions focused on how the existence of First Steps influences their work. As shown in Tables 44 and 45, respondents overwhelmingly thought that First Steps made it easier for their agencies to provide new services and maintain those already in existence, that First Steps has not hindered their ability to pursue their missions, and that First Steps' goals are in line with their own.

**Table 44. Non-First Steps Respondents' Views of First Steps' Influence on Department Activities**

Activity	How has the First Steps initiative impacted your department's ability to do the following?		
	Harder	Easier	No Difference
Create new or innovative services		89%	11%
Increase access to services		100%	
Identify and serve at-risk children/families		89%	11%
Maintain current level of service		78%	22%
Eliminate inefficient or ineffective services	12.5%		87.5%
Secure funding for existing initiatives/personnel	66.7%		33.3%

**Table 45. Non-First Steps Respondents' Views on Collaboration and Compatibility**

Statement	Agree	Disagree	Neither
Collaborating with First steps has lead to more paperwork	33.3%	44.4%	22.2%
Collaborating with First Steps detracts from my core duties	11.1%	77.8%	11.1%
First Steps mission is compatible with my department's	88.9%	11.1%	
Since the creation of First Steps, my agency has had a harder time achieving its mission/goals		100%	

## Summary

While respondents had many good things to say about First Steps, they do not appear to be looking at the program through rose-colored glasses. That is, they had criticisms about how the program is run. In particular, executive directors had a less optimistic view than the board chairs of relationships between the state Office of First Steps and the local offices. There was clearly a difference in the two groups' experiences and impressions with First Steps rules and regulations. When it came to rating the clarity of reporting and accountability rules, there was a 23-point spread (70% versus 93%) between EDs and BCs.

This point, combined with the fact that affiliated and non-First Steps affiliated respondents both tended to see few differences in how the state First steps office operates compared to other state departments and programs, suggests that the decentralized model

has not resulted in new bureaucratic efficiencies. It seems that the layered approach of a state office and then local offices and boards of trustees undermines some of the county-level discretion, resulting in bureaucratic business as usual. Perhaps the best example of this are instances when budget priorities identified by staff through a needs assessment process are set aside in favor of a board-directed investment strategy. That being said, there does seem to be some evidence that the availability of First Steps funds has supported an effective investment strategy and allowed some room for innovative approaches both within First Steps and among collaborating partners.

# Conclusions and Recommendations

## Introduction

This conclusions and recommendations section will first highlight the findings of this evaluation. Next, the focus will turn to the future of First Steps by providing recommendations for the improvement and the continued development of First Steps both locally and statewide. These recommendations will be the foundation of future consultation provided by High/Scope to the First Steps organization. This report will then conclude by describing changes and improvements to program policies and practices that the Office of First Steps and its Board of Trustees have already begun implementing.

Within each of the individual investigations of early education, child care (quality enhancement and child care expansion), parenting and family strengthening, and the added value of First Steps, the same four thematic questions drove the inquiry:

- Who is being served?
- What is the range of the services being provided?
- What is the quality of the services being provided?
- Do the services impact the outcomes of participants?

A mix of evidence (interviews, surveys, classroom observations, observations of children, testing of children, teacher reports of children's behaviors) and methods (secondary analysis of existing databases, primary analysis of newly collected data) were used to pursue the answers to these questions.

## Early Education

The evidence presented showed that 4K teachers are highly qualified and that all First Steps funded 4K teachers have a bachelor's degree or higher and an early childhood certification. However, data related to curriculum implementation and classrooms quality indicated that 4K classrooms were of average quality and that there was no difference in quality between First Steps-funded classrooms and all others.

Child outcomes for First Steps-funded 4K children came from analysis of cohort 3 (2003–2004) and cohort 4 (2004–2005) data that clearly indicated that children who received First Steps funds were significantly more disadvantaged than those who did not. Additionally, children who participated in First Steps without 4K were most at risk for grade retention, special needs placement, and lower academic achievement compared to both their First Steps-funded with 4K and non-First steps-funded 4K peers.

There was consistent evidence that enrollment in full-day 4K has positive effects on child outcomes. It was clear from these analyses that while in general 4K experiences reduced the odds of being retained, full-day 4K had a greater impact in reducing those odds. A consistent finding within the SCRA and PACT scores was that while minority children score lower than White children, 4K effects are stronger for minority children than for White children.

## **Child Care**

The data presented in this section described the relationship between quality enhancements, program quality, and the data on child characteristics. There was a link between the provision of quality services provided in child care and the most disadvantaged South Carolinians. Evidence showed that recipients of First Steps child care scholarships and ABC vouchers were disproportionately poor and minority. It highlighted that the First Steps goal of reaching the most at-risk children and families was being achieved.

There was limited, self-reported evidence that the programs those children might attend were improving in quality and that those improvements could be linked to participation in quality enhancement activities. The strongest evidence came from Richland County, providing specific data that showed improved quality in pre/post training assessments. Results suggested the ability of First Steps quality enhancement to improve child care quality particularly in areas related to cognitive outcomes for children—specifically listening, talking, and learning activities.

Self-reported quality ratings were significantly correlated to the teachers' levels of education, the amount of training received in the last twelve months, and the focus on training in staff meetings. Specifically,

- The higher teachers' level of education the more likely they were to report providing more developmentally appropriate learning experiences and appropriate staff/child interactions.
- The greater the amount of training the classroom teacher had received in the last twelve months the more likely they were to report engaging in more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.
- The teachers who worked in centers that placed greater importance on staff training or worked in centers that had more resources for staff training reported providing more developmentally appropriate activities and/or reported higher quality ratings on daily learning experiences in language, communication, fine motor development, and art.

Participants in First Steps quality-enhancement initiatives overwhelmingly reported high levels of satisfaction with the quality-enhancement programs that First Steps subsidizes.

While information presented provided support for the argument that quality enhancements improved program quality and that the neediest families benefit from child care expansion programs, it did not allow for definitive statements or broad generalizations to the First Steps population of programs and children. This evidence also did not support statements of causality.

### **Parenting and Family Strengthening**

It was anticipated that it would be difficult to find a link between parenting and family strengthening programs and child outcomes. Not only was there little evidence of a relationship between them, analyses suggest that children whose parents participate in parenting and family literacy programs actually have greater negative outcomes than children whose parents have not participated in these programs. This does not mean that enrollment in any of these programs placed a child at greater risk for retention or special needs placement, rather is most likely due to that fact that many of these programs are

working with families and children who because of their difficult situations experience more negative outcomes

Data that was available indicated that these programs are clearly targeting the most vulnerable families. Children from families who participated were more likely to have been minorities and received food stamps, Medicaid, and TANF at higher rates. They were also significantly more likely to have been eligible for free and reduced lunch, to have been in foster care, to have had special needs placement, and to have been low birth weight when compared to other non-parenting children. First Steps parenting and family strengthening mothers also had significantly less education than those in the other categories. In every category First Steps participants were poorer and more at risk than their nonparticipating counterparts.

Two programs consistently demonstrated positive outcomes for children. These were the family literacy programs English as a Second Language and Family Literacy Model Programs. The comprehensive nature of family literacy model programs which require activities in four key components (child care, adult education, parenting, and parenting and child interaction) may be driving that result, however sample sizes were small and not very reliable.

### **The Added Value of First Steps**

Has the existence of First Steps with its structure of local decision making and interagency cooperation led to efficiency, effectiveness, and innovation in the provision of early childhood care and education services across the state? This question was at the heart of the addition of “value-add” research questions to the evaluation. Interviews with local executive directors and board chairs as well as surveys solicited from non-First Steps departments and organizations, indicated mixed answers.

Respondents had many good things to say about First Steps but also had criticisms about how the program is run. Executive directors had generally less optimistic views regarding relationships between the state Office of First Steps and the local offices. Affiliated and non-First Steps-affiliated respondents tended to see few differences in how the state First Steps office operates compared to other state departments and programs. This suggested that the decentralized model has not resulted in new bureaucratic

efficiencies. It seemed that the layered approach of a state office and then local offices and boards of trustees undermined some of the county-level discretion that resulted in bureaucratic business as usual. Even so, there was evidence that the availability of First Steps funds had allowed some room for innovative approaches both within First Steps and among collaborating partners.

## **Recommendations**

This report began by reminding readers of the goals and results of the 2003 evaluation; it concludes by revisiting recommendations made in 2003. It is important to highlight those recommendations because many of the issues brought to the forefront in the past continue to be challenges for First Steps in the present. The Child Trends report highlighted four categories for improvement: a focus on the quality of programs; data collection; strengthening procedures and administrative structures in the initiative; and spending. Specific recommendations that are still relevant included:

- First Steps should increase the focus on program quality across the state. Suggested areas for improvement included further training for teacher's aides in 4K classrooms and special focus on child care initiatives to improve quality in centers.
- First Steps should continue to provide training for executive directors and county board partnerships in all areas but with a special focus on fiscal areas, Program Effectiveness Reports (PERs), and the challenges counties faced while implementing First Steps. Many similar challenges were encountered across counties such as a lack of transportation and qualified staff. The report indicated the need to develop mechanisms that would allow counties to share experiences.
- There should be improvements in the standardization and clarity of administrative procedures between the state and the counties.
- First Steps should strengthen the evaluation processes. The report identified a need to create a method for tracking family and child receipt of services that ensured consistency in the data collected by the counties and unduplicated counts.

It also described the need to appropriately select and develop guidelines for child assessments across programs.

- There needs to be adequate resources to sustain First Steps efforts so as to continue the strengthening of the quality of the programs, data collection, and administration.

### Looking to the Future

The work done by High/Scope for First Steps includes two phases: an evaluation phase and a consultative phase. The questions asked and answered here are a part of the evaluation phase. During the second phase of this project, High/Scope will assist the First Steps office and board of trustees with preparation for the 2009 evaluation. Recommendations for change resulting from this evaluation are focused on three areas: program investment; data management; and organization, bureaucracy and collaboration. In some of these areas, First Steps has already documented the recognition of a need for change. For others future initiatives should be considered.

### Program Investments

Over the past several years, First Steps has invested the majority of its resources into supporting and expanding 4K, improving access to and the quality of child care, and developing parenting and family literacy programs. This last category has been growing and is currently First Steps largest investment.

First Steps is meeting its legislative mandate to reach the neediest South Carolinians. However, the currently changing context of state-funded preschool initiatives could mean that a priority for serving children at risk of school failure is supplanted by a desire to provide access to quality early childhood education programs to all children and families. Universal preschool in and of itself is an excellent idea. The question for all states and First Steps in particular, is how to invest limited funds in ways that are likely to produce the greatest gains. There is a delicate balance that must be struck between the cost of creating more programs and insuring that any program that exists is of high quality. Additionally, there is the challenge of deciding on a preschool-

focused strategy or a comprehensive services strategy like First Steps (Christina & Nicholson-Goodman, 2005).

It is recommended that First Steps continue to invest its limited resources in providing quality services that have evidence of effectiveness to the neediest children. The strongest evidence of child outcomes in this evaluation comes from the early education analyses. There was a positive, significant impact on child outcomes that can be attributed to 4K attendance. Further, the evidence shows that children benefit more from a full-day 4K experience than a half-day experience. The positive effects of full-day are magnified for minority children.

Considered together, the early education and parenting child outcomes findings raise issues for future First Steps investments. Consideration needs to be given to what types of programs First Steps will continue to fund in the future. While many programs have great value to children and families, not all of them (particularly parenting and family strengthening) have a clear, direct, and measurable link to the school readiness outcomes measured in this evaluation. If the only concern of First Steps is measurable increases in school readiness, spending should focus less on parenting and family strengthening programs and more on providing quality preschool and child care experiences for children at risk for school failure.

On the other hand, if the goal of First Steps is to continue to provide comprehensive services and programs that support families in an effort to increase school readiness, then the focus of evaluation needs to be measured by the impact that individual programs have directly on parents and families. Parents' knowledge or skills need to be measured directly to document gains for the adult participants. Additionally, the focus of child outcomes should be on child well-being and child/parent relationships that are more directly linked to the content of the parenting and family literacy programs (e.g. decreased incidents of abuse or neglect, increased levels of parent-child communication/positive interactions, more time spent reading to one's children). These measurements of parent and family outcomes need to be collected pre- and post-implementation, using a common set of tools across programs, that are made available directly to First Steps for evaluation purposes to justify expenditures in any particular program.

It is also recommended that First Steps consider limiting the scope and number of parenting and family literacy programs in favor of supporting a smaller number of programs. Investments should be in those programs that have a documented history of providing specific gains for parents and families. With limited funds available, First Steps cannot continue to offer such a wide berth of potential programs. Programs with very low numbers of participants or programs that do not have easily measurable outcomes that can be tied to family improvement should be eliminated from, or have low priority, in a First Steps investment strategy.

### Data Management

As was painstakingly noted throughout this report, there were answers that could not be given and data analytic techniques that could not be pursued due to a lack of available data. In 2003, Child Trends recommended that First Steps prepare for the 2006 evaluation by putting in place systems to track clients and services, that there be a standardization of data collection tools, and that serious consideration be given to whether the Program Effectiveness Reports (PERs) should continue to be collected. Over the course of this evaluation, it became clear that there is still need for significant improvement in these areas. Recently, First Steps has revised the PERs to address the variable quality and comprehensiveness of information provided by the counties. This is a positive development. However, it is recommended that further consideration be given to whether a better system could be devised.

The issue of missing data must be addressed. Systems currently in place are inadequate to collect, manage, and track First Steps participants longitudinally. That counties have only been required to provide complete records on 50% of their clients makes evaluation almost impossible. This policy combined with methods used by the ORS to create unique identification numbers results in uncertainty regarding the exact number of First Steps clients. Large numbers of adult clients cannot be identified or matched with any child clients in the data. Not included in this analysis were approximately 7,000 of these adult clients. This raises serious concerns regarding the validity of any data that is collected. Counties must be required to complete information on their clients.

Since the 2003 evaluation, there still remains a need for a system that standardizes and validates county and vendor participation data. The need for a standardized set of instrumentation, which can be used to compile program and vendor participation information, must be reiterated here. Additionally, High/Scope recommends a standardization of outcome measures for all participating programs and vendors that will allow for easier evaluation in 2009. The inconsistent manner in which participants and services are tracked must be improved.

### Bureaucracy and Collaboration

The lack of available data was not entirely due to First Steps' inconsistent collection of program and client information. As noted throughout the text, this evaluation was challenged by the Department of Education's reluctance to provide information. In some instances there was an outright refusal to participate. In others there was a slow response time to requests that made completing the work difficult and in some instances impossible. In other cases, department personnel did not actively thwart the work, but neither did they support it when they could have.

While First Steps seems to shine in breaking down borders at the local level, there is work to be done at the state level. It is obvious that there are political rivalries between First Steps and the Department of Education. Assuming the best intentions of all parties, this battle over turf and access to information is based in each agency's commitment to providing high-quality services within the context of a limited amount of resources. It is recommended that as First Steps either maintains or increases its investments in 4K, that it works with the Department of Education to build on the strengths of each agency. One strategy may be to look to counties where partnership has been particularly successful and build upon the relationships and lessons learned there.

The state Office of First Steps also needs to reconsider its relationships with county offices. Executive directors offered clear feedback that they are struggling with what they perceive to be a state bureaucracy not in sync with their local needs. It is recommended that the state office provide clearer communication of expectations and guidance on how to meet them. This does not mean creating more layers of reporting. Instead it means simplifying regulations when possible, doing away with rules that are no

longer necessary, and installing new expectations of accountability with regards to data collection.

### First Steps' Self-Improvement Strategies

The Office of First Steps and its board of trustees are not unaware of the challenges they face. In recent months they have begun to address problem areas in their policies and practice. Two important documents highlight changes that the state office and the state board of trustees have approved for implementation: the *Blue Print for South Carolina's Children's Update* and the *First Steps 4K Continuous Improvement Plan*.

The *Blue Print for South Carolina's Children's Update*, adopted in January of 2005, listed as problems

- A lack of consistent, statewide priorities that was leading to a diffuse message of First Steps' value to SC.
- An undue emphasis on process and administration leading to a perception of excessive bureaucracy.
- Significant operational "silos" operating within the school readiness community that was limiting collaboration and the most effective use of resources for South Carolina's children.

In adopting this document the First Steps board acknowledged the need for the realignment of the administrative structure of First Steps' statewide organization to reflect state readiness priorities, ensure efficient use of expertise among all school readiness partners, eliminate unnecessary administrative expense, and provide leadership in serving children under 6. The document listed as First Step objectives:

- Evaluate all early childhood education programs, looking for research-based accountability, with the goal of eliminating or redirecting those programs with minimal results.

- Identify and develop collaboration agreements with other public or private entities that can add or strengthen school readiness services within their scope.
- Develop and implement the state’s long-term strategy and action plan for increasing school readiness.
- Ensure that all school readiness initiatives effectively and efficiently utilize public and private resources to increase and improve the readiness of South Carolina’s children.

The second document, *Publicly Funded Prekindergarten in South Carolina: Coordinating Resources for Greater Impact* (Appendix C) contains an analysis of, and a series of recommendations for, South Carolina’s publicly funded prekindergarten programs. The document, adopted in December 2005 by the First Steps State Board of Trustees, recommended the following:

- Establish an evidence-based legal definition of “at risk,” to include the requirement that state dollars be used—first and foremost—to serve children whose demographic and/or developmental characteristics fall within its parameters.
- Conduct a demographic audit and matched cohort analysis comparing the attributes of and outcomes derived by students participating in half-day and full-day 4K programs.
- Establish an initial goal of “universal public access” for high-risk four-year-olds (across funding streams and service delivery models).
- Resist the temptation to base important public policy decisions upon over-generalizations of early childhood research findings.
- Utilize the existing legal structure of First Steps—at both the state and county levels—to convene the state’s prekindergarten providers and assist in coordinating their efforts across public funding streams.
- Use state funds to enhance Head Start, not supplant it.

- Redouble efforts to establish common ground with the state’s private providers and develop quality-enhancement initiatives and/or incentives built around areas of broad consensus.
- Examine teacher licensure requirements in an effort to reduce and/or eliminate barriers to the employment of certified early childhood teachers within non-traditional settings.
- Explore the provision of funding incentives to school districts opting to provide prekindergarten programming in private and community-based settings.
- Continue refining the First Steps Public-Private Partnership Model.
- Explore flexible approaches to expansion (as necessary) to avoid both “one size fits all” solutions and minimize the risk to private providers.
- Give careful consideration to providing expanded services to high-risk students before devoting public dollars to universal access for all four-year-old students.
- Explore the provision of income tax deductions to assist families who choose and can afford to pursue prekindergarten programming for their children through non-public means.

Together, both of these documents demonstrate that First Steps has already recognized the potential for changes that will allow it to become a more effective organization. Many of the recommendations in this evaluation have already been identified as problem areas in internal First Steps documents. This bodes well for the future of First Steps. It is an organization that is both dedicated to serving South Carolina’s neediest children and families as well as to continually assessing whether or not they are doing so efficiently and effectively. A comprehensive early childhood initiative like First Steps will always face implementation challenges. In order to fulfill its mission, First Steps must continually assess its policies, practices, and relationships. First Steps is doing just that—and as a result is moving from implementation to impact.

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## Appendix A: The South Carolina Readiness Assessment

Tables 46, 47, and 48 show the results of factor analyses that were conducted using SCRA data. Specifically, they show the individual item loadings for the four factors presented in the text as measures of the long-term effects of 4K, First Steps-funded 4K, and half- versus full-day 4K. The four factors are language, math, approaches to learning, and social skills.

The tables present factor analysis results only for Cohort 2 because that cohort had the most complete SCRA data for both kindergarten and first grade. The exact same pattern of item loadings was found for Cohorts 1 and 3. As noted in the tables, the percentage of variance explained by these four factors is very similar across all cohorts. In the tables, factor loadings smaller than .40 has been suppressed for a clearer presentation.

**Table 46. Factor Loadings for English Language Arts Items**

Item	Factor Loading	
	Kindergarten	Grade One
Communication		
1. Gains meaning by listening	.79	.79
2. Follows directions	.79	.81
3. Speaks clearly	.78	.79
4. Uses expanded vocabulary	.81	.84
Reading		
5. Interest and knowledge about books	.80	.77
6. Understanding of concept about print	.86	.83
7. Demonstrates phonemic awareness	.85	.86
8. Knows letters and sounds	.84	.87
9. Comprehends fiction and non-fiction text	.85	.86
Writing		
10. Reproduce stories through pictures...	.84	.88
11. Uses letter-like shapes, symbols to convey	.84	.85
12. Understands purposes for writing	.86	.87

**Note.** Based on Cohort 2,  $n = 45194$  for kindergarten, and 40970 for grade one. Variance explained = 68% for kindergarten and 70% for grade one. Method = principal components analysis. For Cohort 1 and 3, variance explained = 68% and 69% for kindergarten, and 69% for Cohort 1's grade one. The listed items are based on kindergarten version; the corresponding items may be slightly different for grade one.

**Table 47. Factor Loadings for Mathematics Items**

Item	Factor Loading	
	Kindergarten	Grade One
Mathematical processes		
1. Uses strategies to solve problems	.85	.85
2. Uses words to describe math ideas	.86	.86
Number and operations		
3. Understanding of numbers	.85	.86
4. Understanding relations between quantities	.87	.88
5. Responsible estimation (only for grade one)		.85
Patterns and relationships and functions		
6. Sorts and classifies according to a rule	.84	.85
7. Recognizes duplicates and patterns	.83	.84
Geometry and spatial relations		
8. Recognizes attributes of shapes	.83	.86
9. Understanding direction and position words	.83	.86
Measurement		
10. Describes by size, length, capacity...	.85	.86
11. Uses common instruments for measuring	.82	.86
12. Awareness of time concept	.82	.84
Data Collection and Probability		
13. Collects data and makes records	.81	.87
14. Predicts based on data (only for grade one)		.86

**Note.** Based on Cohort 2,  $n = 45292$  for kindergarten, and 40979 for grade one. Variance explained = 70% for kindergarten and 73% for grade one. Method = principal components analysis. For Cohort 1 and 3, variance explained = 69% and 70% for kindergarten, and 71% for Cohort 1's grade one. The listed items are based on the kindergarten version; the corresponding items may be slightly different for grade one's.

**Table 48. Factor Loadings for Personal and Social Development Items**

Item	Factor Loading			
	Kindergarten		Grade One	
	F1	F2	F1	F2
<b>Self-concept</b>				
1. Demonstrate self-confidence		.82		.84
2. Shows initiative and self-direction		.84		.85
<b>Self-control</b>				
3. Follows classroom rules and routines	.78		.77	
4. Uses materials purposefully	.77		.76	
5. Manage transitions and adapts to changes	.70		.68	.45
<b>Approaches to learning</b>				
6. Shows eagerness and curiosity		.77		.78
7. Chooses new and familiar materials		.75		.71
8. Flexibility and inventiveness		.81		.79
<b>Interaction with others</b>				
9. Interacts easily with peers	.79		.80	
10. Interacts easily with familiar adults	.63		.71	
11. Participates in the group life	.52	.58	.53	.60
12. Shows empathy and caring for others	.75		.80	
<b>Social problem solving</b>				
13. Uses strategies to resolve conflicts	.69	.40	.67	.49

**Note.** Based on Cohort 2,  $n = 45282$  for kindergarten, and 41014 for grade one. Variance explained = 67% for kindergarten and 70% for grade one. Method = principal components analysis, rotation = varimax. For Cohort 1 and 3, variance explained = 68% and 67% for kindergarten, and 69% for Cohort 1's grade one. The listed items are based on the kindergarten version; the corresponding items may be slightly different for grade one's.

## **Appendix B: Countdown to Kindergarten**



## 2005 UPDATE: COUNTDOWN TO KINDERGARTEN SC's School Transition Program for Rising Kindergarten Students



**Countdown to Kindergarten** – A program that provides four weeks of intensive, family and community-based learning for the state's youngest students as they prepare for kindergarten.

### Three Distinctive Goals –

- To increase successful transition of SC's most at-risk children into the K-12 school environment;
- To increase parent involvement in the early grades (particularly among the hard-to-reach at-risk community), when children's learning is foundational for life success; and
- To build greater public awareness of the importance of school readiness and to provide simple ways for parents, caregivers, and communities to impact children's early school success.

In January 2005, the National Governor's Association (NGA) report *A Governor's Guide to School Readiness* cited South Carolina's Countdown to Kindergarten program as an "innovative public awareness and home visitation initiative to support kindergarten transition."

**2004 Pilot Results** – The numbers are in. The research from pre- and post-assessment and a follow up (6 months later) survey shows that Countdown to Kindergarten has long-term, maintained effects on children who are entering Kindergarten and their parents. Of the more than 600 children and their families who participated in the pilot year, resulted in:

- A 95 percent improvement in families reading to their children;
- A 78 percent increase in families telling their children stories; and
- A 93 percent increase in families teaching their children letters, words and numbers.

In addition, the Home Visitation records tell us that the parent level of participation (i.e., interacting, playing or reading with the child) during home visits improved by 71 percent.

Long-term results as reported by teachers of Countdown students include stronger school participation among these families as measured by student attendance, parent teacher conferences and parent volunteering. Parents felt more encouraged to participate in their children's school than the average of their fifth, eighth and eleventh grade counterparts – 96.7 percent compared to 79.9 percent.

### Quote from the Field

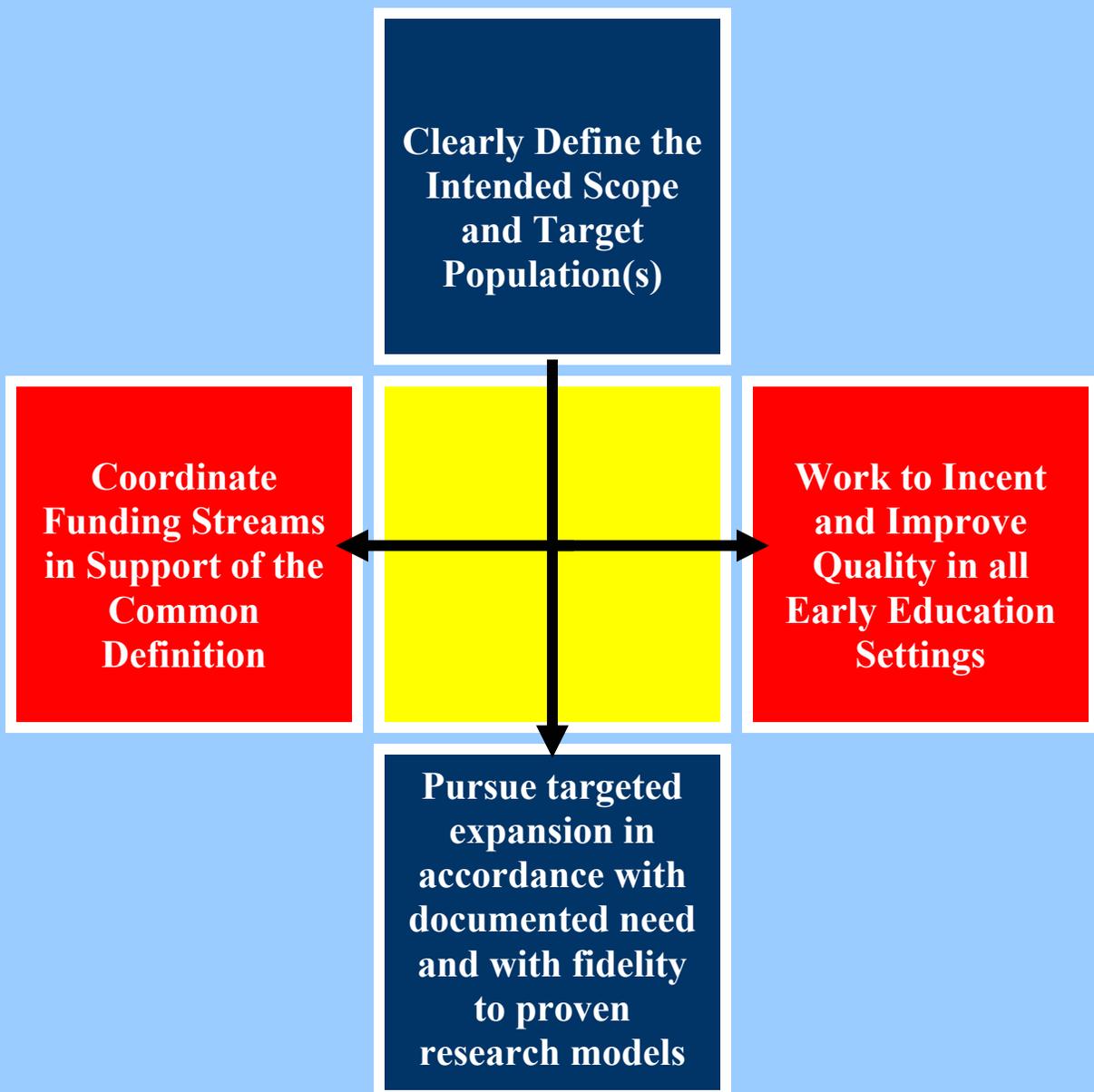
"Parents [who participated in Countdown to Kindergarten] who probably wouldn't come to school at all have been attending conferences, coming to visit and simply staying in touch."

**Countdown to Kindergarten 2005** – Due to the success of the pilot program, First Steps is expanding the 2005 Countdown to Kindergarten program to all 46 counties in the state, serving 920 children. Furthermore, First Steps has the support of last year's partners and donors and is securing long-term support from new local donors and statewide partners such as the Hootie and the Blowfish Foundation and the Girl Scouts of the Congree.

# **Appendix C: Publicly Funded Prekindergarten in South Carolina: Coordinating Resources for Greater Impact**



# Publicly Funded Prekindergarten



## Statement of Purpose

**Promoting the early development** of South Carolina's children is the duty of *parents and families* - many of whom confront the necessity of sharing this responsibility with one (or more) of the state's public, private, and/or faith-based early education providers. While honoring the importance of *active, participatory parenting*, policy makers must also be mindful that 66% of SC mothers are active in the workforce - *making the availability and affordability of high quality early childhood settings* issues of significant consequence for

the state's educational and economic future.

This document contains an analysis of and a series of recommendations relating primarily to South Carolina's **publicly funded prekindergarten programs\*** (with a special emphasis upon programs serving four-year-olds). *This emphasis should not be misconstrued as a suggestion that high quality prekindergarten programming exists only within the public sector, nor as any attempt to diminish the efforts of parents opting to forego center-based early education in favor of providing important early learning opportunities within their homes.*



\*Readers should be aware that for the purposes of this document the term "**publicly funded prekindergarten programs**" extends beyond those funded by the SC General Assembly to include all programs operating with public dollars.

**The First Steps Board of Trustees is authorized to "assess and develop recommendations: for ensuring coordination and collaboration among service providers at both the state and county level, for increasing the effectiveness of state programs and funding and other programs and funding sources, as allowable, as necessary to carry out the First Steps to School Readiness initiative, including additional fiscal strategies, redeployment of state resources and development of new programs."**

**- South Carolina Section 20-7-9720**

## Background

**South Carolina** is an unmistakable leader in the field of early childhood education. One of only nine states to offer full-day kindergarten to all children, it has also developed a reputation for the scope and quality of its publicly funded prekindergarten initiatives, including EIA-funded four-year-old child development (4K), Head Start, preschool special education, the ABC Child Care Voucher System, and South Carolina First Steps to School Readiness.

As policy makers prepare to consider the adequacy of substantial existing investments in prekindergarten (estimated at \$100 million plus for four-year-olds alone), a prerequisite question begs their attention:

*For which South Carolina children should the provision of taxpayer-funded prekindergarten programs be considered a priority?*

The answer to this question is of no small significance, as it holds the potential to dramatically reshape South Carolina's early childhood landscape. Should the state transition toward publicly funded 4K access for all children? Or might limited resources be more appropriately earmarked to provide intensive and possibly even expanded services to those students most likely to experience failure within the state's K-12 education system?

While it is not within the exclusive purview of SC First Steps to answer this question, no responsible discussion of the state's early childhood systems can be undertaken without its resolution. An *operational definition* of the intended scope and target population(s) for South Carolina's publicly funded prekindergarten programs is therefore the state's first and most pressing early childhood policy issue.



## Clearly Define the Intended Scope and Target Population(s)

**Though** each of the state’s current initiatives is designed - on at least some level - to serve “at risk” populations (First Steps is charged with promoting the school readiness of *all* SC children, but has established service to high risk children and families as a funding priority.), a *common definition* of “risk” is most notably absent within the state’s publicly funded 4K programs, currently serving 17,221 children at an estimated cost of \$52.6 million. (Note that this figure includes not only the

state’s \$25.5 million EIA allocation, but an estimated \$31.1 million in public funding leveraged by local school districts). While these programs were created to serve children with “predicted significant readiness deficiencies,” individual districts are left to establish their own enrollment criteria, with the use of a developmental screening tool (the DIAL-3) as the only common thread.

The *absence of a statewide eligibility definition* not only confounds any discussion of funding adequacy (It is currently impossible to determine whether the state is serving all “at risk” children, as this term remains undefined by any common measure – though the Southern Regional Education Board has recently lauded South Carolina as one of a handful of states already providing more access to publicly-funded pre-k than it has children in poverty.<sup>4</sup>), but also muddies the integrity of reported 4K waiting lists – some of which almost certainly capture the number of interested applicants turned away from the state’s public schools, as opposed to quantifying *high priority children* who remain unable to access *any form* of publicly funded prekindergarten.

### Half-Day Child Development Programs SC Regulation Number: R 43-264.1

#### Criteria for Enrollment

Each district shall develop criteria for the enrollment of children who have predicted significant readiness deficiencies. These criteria shall include the following:

1. A screening instrument approved by the State Department of Education for use in determining each child’s developmental level,
2. An entrance age requirement which specifies a child must be three if the program serves three-year-olds, or four-years of age on or before September 1 of the applicable school year,
3. Legal birth certificate issued by the Department of Health and Environmental Control or other appropriate authorized agency,
4. South Carolina Certificate of Immunization
5. Comprehensive Health Appraisal if deemed necessary or appropriate.

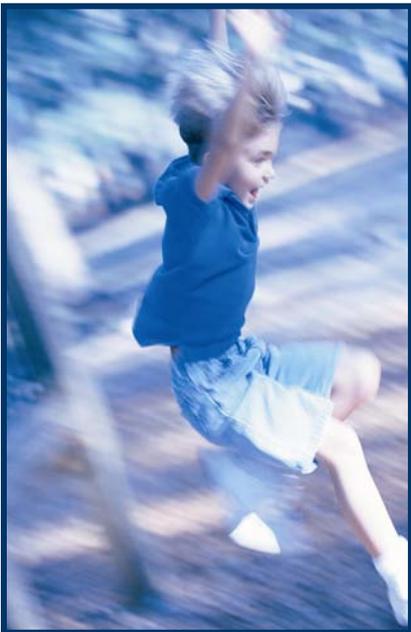
This absence also raises the possibility that students who might otherwise be considered a low priority for taxpayer intervention (some of whom might readily access prekindergarten in the private sector) are filling spaces more appropriately devoted to others. (Only 52% of the 4K cohort tracked in the SC Department of Education’s 2004 report, *What is the Penny Buying for South Carolina?* qualified to participate in the study’s experimental group on the basis of free- or reduced-price lunch status. While

<sup>4</sup> Building a Foundation for Success by Getting Every Child Ready for School, SREB, 2005.

there is reason to believe that these figures may be improving, a recent Office of Research and Statistics analysis of 2004-2005 4K demographics by school district suggests that nearly 1 in 5 participating students currently qualifies for *neither* meal subsidies nor Medicaid.)

*While targeting difficulties are almost unavoidable within half-day programs (whose structure poses significant participation barriers to many high-risk families) and programs located in pockets of concentrated wealth, it is evident that at least some of the state's existing 4K investment could be redirected toward greater impact - as either or both:*

- a) a low-cost opportunity to refocus our existing investment upon high risk populations, and/or*
- b) an initial step toward expanded service within the public sector.*



Second Year Report of the Evaluation of the Four-Year-Old Child Development Programs Funded Through the South Carolina Education Improvement Act

“Based on our two years of work, these are our recommendations:

- Disseminate clear criteria for what constitutes at risk status for children and families.
- Establish methods in EIA-funded preschools that promote recruitment and enrollment of all children who are at the greatest risk for school readiness difficulties.
- As funds become available or as flexible use of funds is permitted, allocate future EIA funding to serve children who are at risk, or to enroll children who are at risk in full-day programs, or both.
- South Carolina should establish a statewide, interagency professional development system for preschool personnel that will identify professional needs and implement and evaluate professional development activities to meet those needs, especially in the areas of:
  - literacy and numeracy
  - working with families
  - developmentally appropriate practices for children
  - positive child guidance strategies
  - assessment of children's learning”

William H. Brown and Ellen Potter  
Presented to the Education Oversight Committee  
August 2003

## Recommendations

**1A. Establish an evidence-based legal definition of “at risk,” to include the requirement that state dollars be used - first and foremost - to serve children whose demographic and/or developmental characteristics fall within its parameters.**

This definition might appropriately be drawn from markers of poverty and/or a state-specific analysis of the characteristics of low performing students. The state might also consider, as has North Carolina’s *More at*

*Four Program*, establishing a special emphasis upon students meeting the state’s risk definition as yet untouched by any other form of early childhood programming, and limiting access to students whose family income substantially exceeds the federal poverty definition (300% or more).

**1B. Conduct a demographic audit and matched cohort analysis comparing the attributes of and outcomes derived by students participating in half-day and full-day 4K programs.**

While the state has traditionally been able to establish few differences in the outcomes derived by half-day and full-day 4K programs, national research indicates that children accessing full-day programming are often at significantly higher risk than those able to accommodate a half-day structure. Without an “apples to apples” comparison, any discussion of the merits of half-day vs. full-day programming remains poorly informed.

### 2005 US Department of Health and Human Services Poverty Guidelines

Persons in Family Unit	48 Contiguous States and D.C.		
	Alaska	Hawaii	
1	\$ 9,570	\$11,950	\$11,010
2	12,830	16,030	14,760
3	16,090	20,110	18,510
4	19,350	24,190	22,260
5	22,610	28,270	26,010
6	25,870	32,350	29,760
7	29,130	36,430	33,510
8	32,390	40,510	37,260
For each additional person, add	3,260	4,080	3,750

**1C. Establish an initial goal of “universal public access” for high risk four-year-olds (across funding streams and service delivery models).**

This alternate definition of “universal pre-k” may already be well within our reach using existing funds, assuming their careful and deliberate coordination.

**1D. Resist the temptation to base important public policy decisions upon *over-generalizations of early childhood research findings.***

While a convergence of research clearly supports well-targeted, high quality early childhood interventions, advocates and policy makers alike must be cautioned to avoid over-generalizing these findings in support of unrelated or insufficiently related proposals.

Many of the landmark studies cited in support of universal prekindergarten access (the High/Scope Perry Preschool Project, for example) are based upon unusually intensive interventions with carefully targeted children. Though this is hardly reason to preclude discussions of universal access, policy makers must be aware that these same studies could easily and in some cases more appropriately be used to justify expanded programming for a more narrowly defined population of children.

### **The High/Scope Perry Preschool Project**

Perhaps the most commonly cited study of the benefits derived from high quality early childhood programming, the High/Scope Perry Preschool Project has now tracked the lifetime effects of an intensive two-year prekindergarten experience offered to a sample of low-income Michigan preschoolers through age 40. The Project's latest findings have been used to estimate a societal return of \$17.07 in benefits for every \$1 invested in the preschool education of the experimental group – *a clear suggestion that intensive, high quality prekindergarten pays long-term dividends, particularly for carefully-targeted low income students.*

Perhaps concerned by the growing tendency of well-meaning advocates to over-generalize the study's research findings as support for nearly *any investment* in early childhood, the authors have described in detail the conditions under which the results of the Perry Preschool Project can be generalized, explaining that:

*“A reasonably similar program is a preschool education program run by teachers with bachelor's degrees and certification in education, each serving up to 8 children living in low income families. The program runs 2 school years for children who are 3 and 4 years of age with daily classes of 2½ hours or more, uses the High/Scope model or a similar participatory education approach, and has teachers visiting families or scheduling regular parent events at least every two weeks.”\**

Responding as to whether the study might be generalized in support of state-funded prekindergarten investments, the authors express an optimistic, but cautious viewpoint. Noting that some 40 states now invest in some form of prekindergarten, they explain that:

*“the high quality of the High/Scope Perry Preschool Project is seldom achieved in state preschool programs...but may apply to exemplary ones and could apply to typical ones if policy makers and administrators chose to implement the standards of high quality described [within the study]. It is important to get this point just right, neither overstating nor understating the Perry Preschool Project study's generalizability. While the programs do not apply to typical [programs] as they exist today, it is not because the Perry Preschool program studied was an unattainable ideal run by super-educators the likes of which will never be seen again...the programs and findings...are completely within our reach.”\**

As policy makers examine the needs of the state's high-risk children, it is important that they understand both the limitations and *potential policy implications* of the field's most commonly cited studies – particularly as they may relate to the education of South Carolina's impoverished preschoolers.

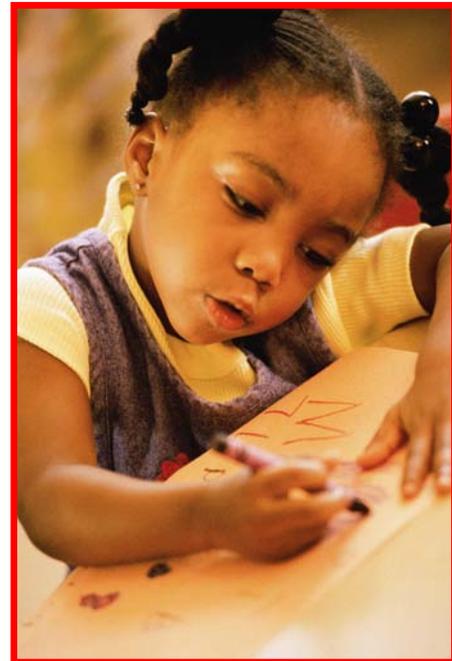
*\*Lifetime Effects: The High Scope Perry Preschool Study Through Age 40. (2005)*

**Coordinate  
Funding Streams  
in Support of the  
Common  
Definition**

**Upon** creation of a consensus *legal “risk” definition*, South Carolina should seek to coordinate its efforts *across public funding streams* to establish a *multi-provider system of high quality, universal prekindergarten for children falling within its parameters*, leveraging the impact of public dollars and limiting detrimental effects upon the state’s private providers. (It is important to note that many private prekindergarten providers depend on three- and four-year-olds to help offset the very high costs of

infant/toddler care. A well-defined targeting and coordination effort among the state’s public providers would likely release some children *back into the private sector* and replace them with children far less likely to be enrolled in tuition-based programs.)

Depending on the breadth of the risk definition established, it is possible that some (or all) counties may possess sufficient resources to provide this access currently - given the coordination of existing resources - while funding gaps are likely to be identified in others.



**In either case, the development of *well-coordinated prekindergarten systems* should be considered a prerequisite to (or at very least a concurrent expectation accompanying) any substantial increases in funding at the state level.**

## Recommendations

### **2A. Utilize the existing legal structure of First Steps – at both the state and county levels - to convene the state’s prekindergarten providers and assist in coordinating their efforts across public funding streams.**

Charged by the General Assembly with convening and collaborating with providers (public and private) in an effort to “*focus and intensify services, assure the most efficient use of all available resources, and eliminate*

*duplication of efforts to serve the needs of young children and their families” (Section 59-152-20), South Carolina First Steps is not only a natural home for any statewide coordination and collaboration effort, but the only agency with an existing statutory mandate to this effect.*

*It is important to distinguish, however, between this mandate (to convene and collaborate with all providers) and the administration/oversight of individual components of the early education system. Readers should be cautioned not to misinterpret any recommendation put forth in this document as a suggestion that SC First Steps is the rightful or most appropriate administrator of programs currently operating within public school districts or under the auspices of Head Start grantees.*

Instead, First Steps asserts its legal roles as a neutral convener (at both the state and county levels), a flexible funding structure through which community-specific needs can be met, and an early childhood policy resource to the state.

### **2B. Use state funds to enhance Head Start, not supplant it.**

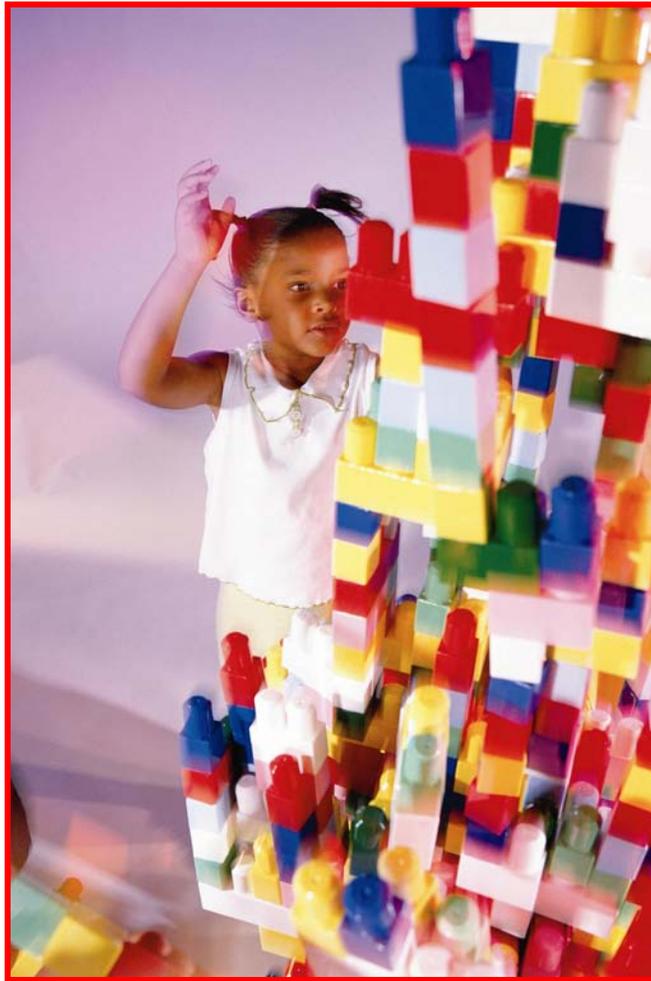
Funded by the federal government, Head Start provides comprehensive services to 12,545 of the state’s high risk preschoolers, including 10.5% of the state’s four-year-old population. In fairness, there are *many ways* in which Head Start regulations and standards surpass those of SC’s celebrated public school 4K programs, and others (most notably in the areas of teacher qualifications and compensation) where these programs fall short of existing South Carolina norms.

While some national advocates have argued in favor of supplanting this federal investment with large-scale expansion of state-funded prekindergarten programming for four-year-olds (often on the premise that this expansion would allow Head Start to focus more narrowly upon three-year-olds), SC policy makers would be wise to explore the use of limited statewide resources to incent and enable the elevation of Head Start teacher qualifications as a common sense alternative.

If the state could, for example, supplement the salaries of state certified Head Start teachers in an amount equal to the difference between existing Head Start and school district salary schedules, it could help to place Head Start classrooms on equal educational footing for a fraction of the cost associated with creating new, state-funded programs in their place.

**Work to Incent  
and Improve  
Quality in all  
Early Education  
Settings**

**Because** the costs associated with providing universal prekindergarten access to a *legally defined* population of children may prove burden enough for the immediate future (as this goal may require the refinement and/or limited expansion of existing public funding), it remains important that South Carolina continue its efforts to incent and improve quality across all of the state's early education settings.



## Recommendations

### **3A. Redouble efforts to establish common ground with the state's private providers and develop quality enhancement initiatives and/or incentives built around areas of broad consensus.**

Few early childhood issues have proven as challenging as the recent effort to establish a voluntary quality rating system for the state's early education providers (both public and private). Its progress hampered by disagreement, the initiative currently sits idle - despite what most agree have been good-faith efforts at substantive revision.

With nearly 7 in 10 South Carolina mothers in the workforce, ensuring the quality of the state's early education settings remains an educational cause in need of policy makers' sustained attention. Whether the end result is a rating system, new recommendations, or both, it is important that the state's early childhood leadership community continue engaging providers from diverse backgrounds and settings in an effort to identify actions and recommendations around which broad consensus can be built.

### **3B. Examine teacher licensure requirements in an effort to reduce and/or eliminate barriers to the employment of certified early childhood teachers within non-traditional settings.**

While compensation is typically cited as the major impediment to the employment of certified teachers in non-school district settings such as Head Start and private child care, the state's teacher licensure requirements also present a small number of reported barriers. An interagency study group, seated by the SC Department of Education's Office of Early Childhood, might reasonably be charged with exploring these issues on the assumption that the employment of certified staff is at least desirable (even if not always feasible) across settings.

### **3C. Explore the provision of funding incentives to school districts opting to provide prekindergarten programming in private and community-based settings.**

The regulations governing South Carolina's publicly funded 4K programs have long allowed for the provision of services in non-district settings - though few (if any) verifiable instances of this outsourcing have ever occurred. While there are many reasons that school district administrators might opt out of locating prekindergarten classrooms off-site (not the least of them being ease of oversight), there are many reasons that such arrangements might also be considered "win-win" for the state's children and families.

In addition to the availability of physical space within many private centers (a resource often sorely lacking in the state's elementary schools), there is considerable reason to believe that a formal connection with the local school district and co-location of one or more degreed, certified staff members will have a positive ripple effect upon the quality

of the center as a whole – thus better preparing even non-participants for school success. What’s more, these arrangements may prove advantageous for the participating students and their families who would have the option of arranging convenient wrap-around care and reducing the number of disruptive school-day transitions experienced by their children.

Even a small pilot program that might provide financial (or other) incentives to participating school districts would have the likely effect of nurturing strategic public-private partnerships across the state.

### **3D. Continue refining the First Steps Public-Private Partnership Model.**

Should public 4K expand beyond current levels of funding and participation, it is almost universally acknowledged that this expansion would have to include providers in the private sector. Not only would any significant expansion within the state’s public school districts threaten the cost and availability of infant/toddler care across the state, it would require an untold number of new teachers and classroom spaces.

To date, South Carolina First Steps has orchestrated the state’s most prominent examples of public-private partnerships, working in close collaboration with both the SC Department of Social Services and SC Department of Education. Classrooms meeting all of the state’s public school 4K requirements (including a certified teacher paid in accordance with the local district’s salary schedule) have seen operation in approximately a dozen private centers, with positive results, over the past four years. These centers, like all First Steps-funded public-private classrooms, must meet all licensing regulations and have the benefit of additional consultation and support through First Steps.

While many of these private centers have worked in close collaboration with local school districts, others have found their teachers and classrooms to be, at best, a low priority among local public school administrators. A number of centers sought access through an initial RFP process, only to find that the local district was unwilling to serve in a partnership role.

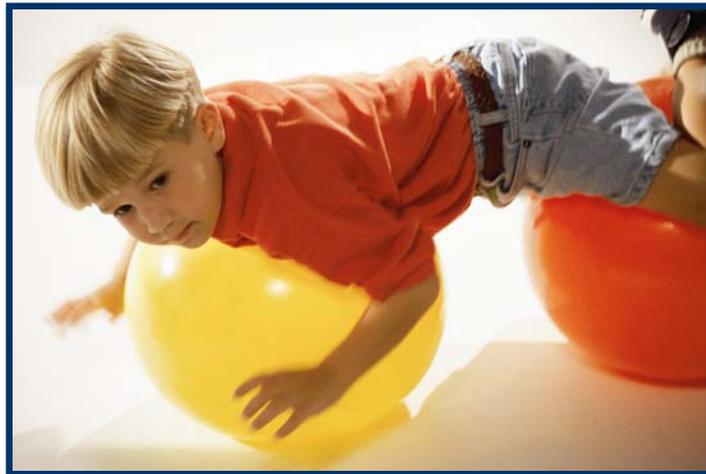


First Steps’ unique history with the public-private 4K expansion model and strong relationship with private providers makes the initiative a natural laboratory for the continued expansion and refinement of these public-private partnerships.

**Pursue targeted expansion in accordance with documented need and with fidelity to proven research models**

**Even** after establishing a legal definition of “at risk” and working to coordinate the state’s efforts across public funding streams, it is possible – if not likely – that the state’s prekindergarten initiatives would benefit from targeted expansion in even their efforts to reach high risk students. What remains unclear are the size of any expansion required, the programs, sectors and delivery models through which this growth might best be accommodated and the geographic regions in greatest need of targeted assistance.

In any case, policy makers faced with competing demands for limited resources will be wise to pursue a policy of carefully targeted expansion on the basis of well documented need.



**“I think the evidence is very strong that family background is a major predictor of the behavior of children. So a disproportionate number of problem kids come from problem families. The simple economics of intervention therefore suggests that society should focus its investment where it’s likely to have very high returns. Right now, that is the disadvantaged population...**

**Functioning middle-class homes are producing healthy, productive kids. We don’t measure their output very well in the national income and product accounts, but it’s very well documented that professional working women spend an enormous amount of time after work in child development. It’s foolish to try to substitute for what middle-class and upper-middle class parents are already doing.**

**I think the evidence suggests that we can target pretty well, and we can certainly deal with the major problems, by starting first with children from disadvantaged families. As an economist, I would argue, go where the returns are highest. At some point, diminishing returns will set in, and you might want to fund early childhood education for other groups. Right now, there’s plenty of room for intervention in disadvantaged families.”**

**Nobel Prize winning economist James J. Heckman**

Federal Reserve Bank of Minneapolis, The Region, June 2005

## Recommendations

### **4A. Explore flexible approaches to expansion (as necessary) to avoid both “one size fits all” solutions and minimize the risk to private providers.**

Should the need for expansion be demonstrated (in cases, for example, where a community’s documented high risk population exceeds the number of publicly funded prekindergarten spaces available) it is possible, if not likely, that some service providers may be better - or even uniquely - poised to take on expanded roles (including those in the private sector). Policy makers might be wise to consider allocating targeted *expansion* funds through the First Steps structure, as this would provide local communities an opportunity to examine existing needs and resources, then develop solutions accordingly.

In allocating these funds, lawmakers could specifically earmark them for the provision of prekindergarten in designated counties or communities. Readers should note that the provision of any *expanded* pre-k funding through the First Steps structure, would not necessarily imply the initiative’s administration of this programming, but instead would allow stakeholders at the community level to plan and implement local solutions with increased flexibility.

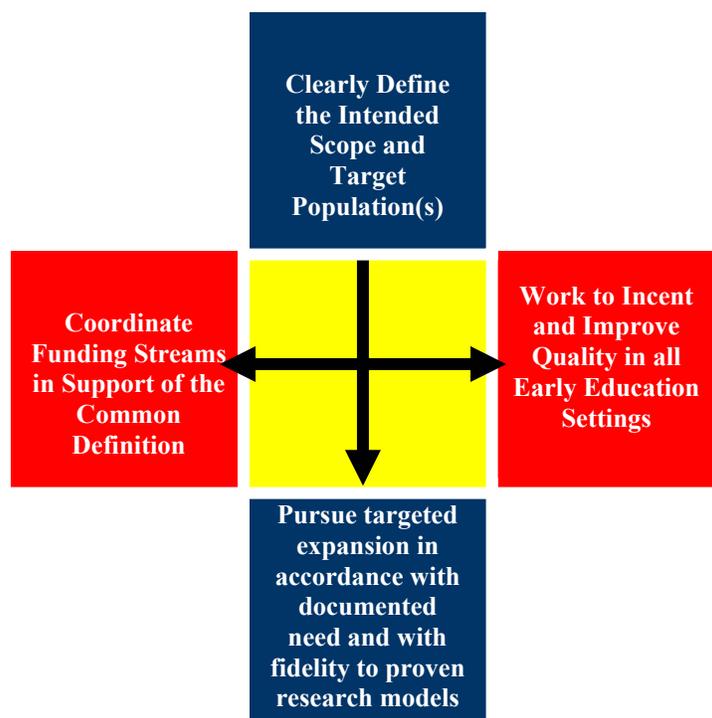
### **4B. Give careful consideration to providing expanded services to high risk students before devoting public dollars to universal access for all four-year-old students.**

Should expansion funds become available, there may be a compelling argument that providing high quality *three- and four-year-old* prekindergarten programs for the state’s most desperately impoverished children should take public policy precedence over new entitlement spending for children likely to succeed (and access prekindergarten in the private sector) without any taxpayer intervention whatsoever. Indeed this very suggestion is supported by some of the field’s strongest research, including the High/Scope Perry Preschool Project.

### **4C. Explore the provision of income tax deductions to assist families who choose and can afford to pursue prekindergarten programming for their children through non-public means.**

While the state may ultimately deem universal prekindergarten for all four-year-olds either: 1) too costly in the short term, or 2) an option best untapped in favor of expanded service to the state’s high risk children, there is little question that the state’s unserved taxpayers would benefit from additional assistance in accessing prekindergarten on their own. The expansion of income tax deductions may provide an affordable alternative until such time that expanded public access is deemed necessary and/or feasible.

## Recommendations Summary



1. Establish an *evidence-based legal definition* of “at risk,” to include the requirement that state dollars be used - first and foremost - to serve children whose demographic and/or developmental characteristics fall within its parameters. (1A)
2. Conduct a demographic audit and matched cohort analysis comparing the attributes of and outcomes derived by students participating in half-day and full-day 4K programs. (1B)
3. Establish an *initial goal of “universal public access” for high risk four-year-olds* (across funding streams and service delivery models). (1C)
4. Resist the temptation to base important public policy decisions upon *over-generalizations of early childhood research findings*. (1D)
5. Utilize the existing legal structure of First Steps – at both the state and county levels – to *convene* the state’s prekindergarten providers and *assist in coordinating* their efforts across public funding streams. (2A)
6. Use state funds to enhance Head Start, not supplant it. (2B)
7. Redouble efforts to establish common ground with the state’s private providers and develop quality enhancement initiatives and/or incentives around areas of broad consensus. (3A)
8. Examine teacher licensure requirements in an effort to reduce and/or eliminate barriers to the employment of certified early childhood teachers within non-traditional settings. (3B)
9. Explore the provision of funding (or other) incentives to school districts opting to provide prekindergarten programming in private and community-based settings. (3C)
10. Continue refining the First Steps Public-Private Partnership Model. (3D)
11. Explore flexible approaches to expansion (as necessary) to avoid both “one size fits all” solutions and minimize the risk to private providers. (4A)
12. Give careful consideration to providing expanded services to high risk students before devoting public dollars to universal access for all four-year-olds. (4B)
13. Explore income tax deductions as a means through which to assist families who choose and can afford to pursue prekindergarten services through non-public means. (4C)



# Publicly Funded Prekindergarten Programs Serving Four-Year-Olds in South Carolina



**Estimated Four-Year-Old Population in South Carolina: 56,054<sup>1</sup>**

<u>Public 4K in South Carolina</u>	
Total children served in public 4K (04-05):	17,221 <sup>2</sup>
Percentage of overall children served in public 4K:	30.72%
<b>Full-Day Programming</b>	
Number of children served full-day:	8,189 <sup>2</sup>
Percentage of 4K participants served full-day:	47.55%
Estimated minimum number of full-day classrooms:	410 <sup>3</sup>
Estimated minimum cost full-day 4K*:	\$33,620,000 <sup>4</sup>
<b>Half-Day Programming</b>	
Number of children served half-day:	8,568 <sup>2</sup>
Percentage of 4K participants served half-day:	49.75%
Estimated minimum number of half-day sessions:	429 <sup>3</sup>
Estimated minimum cost of half-day 4K:	\$17,589,000 <sup>4</sup>
<b>Other</b>	
Additional children served (structure unreported):	464 <sup>5</sup>
Estimated cost of 4K for students reported above:	\$1,476,000 <sup>5</sup>
Estimated Public Spending on 4K in SC:	
\$52,685,000 <sup>6</sup>	

<u>Head Start in South Carolina</u>	
Total children served (three- and four-year olds):	12,545 <sup>11</sup>
Estimated number of four-year-olds served:	5,887 (47%) <sup>11</sup>
Percentage of SC four-year-olds served by Head Start:	10.50%
<b>SC Head Start Funding in 2004-05:</b>	
Estimated HS spending on four-year-olds:	\$81,718,067 <sup>11</sup> \$38,407,491 <sup>12</sup>

<u>Preschool Special Education in South Carolina</u>	
Percentage of SC four-year-olds receiving special education services:	6.70% (3,756) <sup>13</sup>
Estimated percentage of SC four-year-olds receiving unduplicated classroom-based prekindergarten programming via special education:	3.35% (1,878) <sup>14</sup>
Estimated spending on preschool special education serving four-year-olds in South Carolina:	PENDING <sup>15</sup>

<u>ABC Child Care Vouchers</u>	
Estimated number of SC four-year-olds receiving child care assistance through ABC voucher program:	2,395 <sup>16</sup>
Percentage of four-year-olds receiving ABC vouchers:	4.27%
Estimated spending on ABC vouchers targeted at four-year-olds:	\$7,903,500 <sup>17</sup>

<u>ACCESS to Publicly Funded Prekindergarten Programs for Four-Year-Olds in South Carolina</u>		
Type of Pre-K Programming	Number of SC Four-Year-Olds Served	Percentage of SC Four-Year-Olds Served
Public 4K (EIA, First Steps, Title One, Local, etc.)	17,221	30.72%
Head Start (4-yr-old participation only)	5,887	10.50%
Special Education Preschool (estimate)	1,878	03.35%
Totals:		44.57% (Not including ABC vouchers <sup>18</sup> )

<u>Public SPENDING devoted to Prekindergarten Programs for Four-Year-Olds in South Carolina</u>	
Program	Estimated Public Spending Devoted to Four-Year Old Programming
Public 4K	\$52,685,000 (includes all public spending: EIA, First Steps, Title One, Local)
Head Start	\$38,407,491 (47% of overall spending)
Preschool Special Education	PENDING
ABC Child Care Vouchers to Four-Year-Olds	\$7,903,500

**Footnotes:**

1. SC Office of Research and Statistics (ORS) estimate drawn from US Census Bureau Population Estimate 2004
2. SC Department of Education, Office of Research figures for school year 2004-2005
3. Exact classroom counts are not available. Estimated minimum number of classrooms is based upon student counts and a maximum group size of 20.
4. Average costs are *programmatic only* (staffing and supplies), and estimated at \$82,000 per full-day classroom and \$41,000 per half-day session. The SC Department of Education is currently conducting an early childhood assets study in each of the state's 85 school districts. These studies may provide a more precise portrait of actual spending – which is likely to surpass the estimates provided here.
5. The program structure (half-day vs. full-day) for 464 students was unreported to the SC Department of Education's Office of Research in 04-05. The "other" spending figure, calculated on the assumption that these students are evenly divided between half-day and full-day programs, allows these students to be included in the overall cost estimate.
6. Total estimated cost is the sum of estimated full-day, half-day and "other" cost figures.
7. Total EIA 4K allocations to school districts. Note that this figure does not include \$300,000 earmarked for Early Childhood Assets Studies. Source: FY 2005-2006 EIA Program Report on Half-Day 4K, SC Department of Education, Office of Early Childhood Education.
8. Estimate of non-EIA funds is derived from estimated total cost, minus EIA 4K allocation. These non-EIA sources - all public - include First Steps, Title One, and local funds.
9. South Carolina First Steps to School Readiness
10. These per child programmatic spending estimates (which include staffing and supplies only) are premised upon the classroom costs detailed in #4 above, a class size of 20, and an even split of the 464 unreported students listed under "other" into the full-day and half-day student counts and cost estimates.
11. South Carolina Head Start Collaboration Office
12. This estimate constitutes 47% of the state's overall Head Start allocation. (47% of participants are four-years-old.)
13. SC Department of Education Office of Exceptional Children, 2004-2005 IDEA/FAPE reporting. Note that this figure (3,756 children) includes *all* special education services provided in *all* settings – including 4K, Head Start and child care.
14. In an effort to distinguish between students receiving *any* special education service (itinerant speech therapy, for example) and students receiving a classroom-based prekindergarten experience via special education, it is assumed that only half of those receiving special education services should be included in an unduplicated access estimate. A figure of 1,878 (3.35% of children) is therefore incorporated into the prekindergarten ACCESS table above.
15. An estimate of special education spending devoted to four-year-old programming is, as yet, unavailable.
16. SC Department of Social Services estimate, October 2005
17. Estimated voucher cost of \$3,300 per child provided by SC Department of Social Services. Total estimated cost is derived by multiplying estimated number of children (2,395) by estimated voucher cost (\$3,300).
18. ABC Voucher recipients are not included in the access table in an effort to provide an unduplicated count. Some public 4K participants also receive ABC vouchers to provide wrap-around care, though this exact figure is unavailable.



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