

Ready Kids Follow-up
Fall 2009 Data Collection Final Report
Cohort 2

Submitted to:
W.K. Kellogg Foundation
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Submitted by:
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Walter R. McDonald & Associates, Inc. (WRMA) and the Ready Kids Follow-up (RKF) Team are pleased to submit the final report of the fall 2009 data collection to the W.K. Kellogg Foundation (WKKF). The purpose of the study is to assess the impact of the SPARK initiative on kindergarten readiness and success in school. With the use of common measures and data collection protocols, the study systematically assesses the impact of the initiative as well as five community-based intervention models.

HEADLINES

- **Five former SPARK grantees in Georgia, Hawaii, New Mexico, North Carolina, and Ohio participated in the ready kids follow-up in the fall of 2009 resulting in data on 253 SPARK children and 264 comparison children.**
- **There was little variation between SPARK and comparison children in age, gender, or age and gender by site. The average age of all children was 5.5 years**
- **Both the SPARK and comparison groups consisted of vulnerable children that included ethnic minorities, children with parents born outside the U.S., families enrolled in Temporary Assistance to Needy Families (TANF) or receiving food stamps, and children with below average standardized scores on the Bracken Basic Concept Scales.**
- **SPARK children significantly outperformed the comparison children on all composite scores and subscales of the Bracken Basic Concept Scales. Effect sizes revealed noticeable and detectable differences on all composite scores and subscales.**
- **Regardless of group membership, the more children participated in transition-to-school practices the higher the scores on both the Bracken Receptive School Readiness Composite (SRC) and the Receptive Total Composite (RTC) composite scores.**
- **The more SPARK children received SPARK-like interventions the higher the scores on both the Bracken SRC and the RTC composite scores indicating that the interventions were effective only in the context of total SPARK programming.**

BACKGROUND

The W.K. Kellogg Foundation (WKKF) launched the SPARK initiative in 2001. WKKF awarded grants in seven States and the District of Columbia to get children ready for school and schools ready for children. WKKF identified three outcome and impact areas:

ready kids, ready schools, and ready communities. A Phase I planning grant provided the opportunity for each grantee to create community-wide partnerships and action plans, which targeted specific populations of vulnerable children. Phase II implementation began in mid 2003 and ended in May 2008. At the end of Year 5 WKKF funded a 30-month, ready kids follow-up study, beginning in July 2008.

METHODS

This report represents results on a second cohort of kindergarten children who entered school in the fall of 2009. The RKF Team described in detail the study design, administration, descriptions of the intervention models, research questions, and measures in prior reports. That information is updated in three appendices:

1. Appendix A: Design and Method;
2. Appendix B: Five Program Models; and
3. Appendix C: Measures.

Appendix D contains tables that required landscape formatting.

THE CHILDREN

Due to increased recruiting and the addition of the North Carolina site to the study, the N was 517 children for the fall of 2009. Of the 517 children, 67 children were from Georgia, 83 from Hawaii, 45 from New Mexico, 72 from Ohio, and 250 from North Carolina.

Demographics

There were 253 SPARK children and 264 comparison children. Two hundred and fifty-five children were male (49.3%) and two hundred and sixty-two were female (50.7%). (See Table 1 below.)

Table 1. Children by SPARK/Comparison and Gender

Site	All Children		Gender	
	SPARK (%)	Comparison (%)	Male (%)	Female (%)
Georgia	23 (34.3)	44 (65.7)	30 (44.8)	37 (55.2)
Hawaii	32 (38.6)	51 (61.4)	41 (49.4)	42 (50.6)
New Mexico	26 (57.8)	19 (42.2)	18 (40.0)	27 (60.0)
Ohio	34 (47.2)	38 (52.8)	44 (61.1)	28 (38.9)
North Carolina	138 (55.2)	112 (44.8)	122 (48.8)	128 (51.2)
Total	253 (48.9)	264 (51.1)	255 (49.3)	262 (50.7)

There was little variation between SPARK and comparison children in age, gender, or age and gender by site. The average age of all children in the RKF was 5.5 years.

Race/Ethnicity

Of the 504 children identified by race, 216 (42.9%) were African American, 121 (24.0%) were Hispanic/Latino, 91 (18.1%) were White, and 51 (10.1%) were Native Hawaiian. Race and ethnicity were almost equally distributed between the SPARK and comparison groups. As seen in Table 2 below, there were majorities of Native Hawaiians in Hawaii, majorities of Hispanic/Latinos in New Mexico and Georgia, majorities of whites in Ohio, and majorities of African Americans in North Carolina.

Table 2. Child Race and Ethnicity

	All Sites N= 504		Georgia N= 67		Hawaii N= 77		New Mexico N= 45		Ohio N= 170		North Carolina N = 247	
	SPARK N = 250	No SPARK N = 254	SPARK N = 23	No SPARK N = 44	SPARK N = 31	No SPARK N = 46	SPARK N = 26	No SPARK N = 19	SPARK N = 34	No SPARK N = 34	SPARK N = 136	No SPARK N = 111
African American	116 (46.4)	100 (39.4)	0	3 (6.8)	1 (3.2)	2 (4.3)	2 (7.7)	2 (10.5)	3 (8.8)	12 (35.3)	110 (80.9)	81 (73.0)
Asian	1 (.40)	1 (.39)	0	0	1 (3.2)	1 (2.2)	0	0	0	0	0	0
Native Hawaiian	21 (8.4)	30 (11.8)	0	0	21 (67.7)	30 (65.2)	0	0	0	0	0	0
Pacific Islander	3 (1.2)	8 (3.1)	0	0	3 (9.7)	8 (17.4)	0	0	0	0	0	0
Hispanic/Latino	59 (23.6)	62 (24.4)	23 (100)	41 (93.2)	3 (9.7)	2 (4.3)	24 (92.3)	16 (84.2)	1 (2.9)	1 (2.9)	8 (5.9)	2 (1.8)
White	45 (18.0)	46 (18.1)	0	0	0	1 (2.2)	0	1 (5.3)	28 (82.4)	18 (52.9)	17 (12.5)	26 (23.4)
Other	5 (2.0)	7 (2.8)	0	0	2 (6.5)	2 (4.3)	0	0	2 (5.9)	3 (8.8)	1 (.74)	2 (1.8)

Languages Spoken in the Home

Data collectors interviewed parents and children and determined what languages were spoken in the home. Out of 489 responses, 383 (78.3%) spoke English and 102 (20.9%) spoke Spanish. One family spoke Tongan, one Marshallese, and one Korean. Other findings:

- In New Mexico 33 of 45 (73.3%) households spoke Spanish;
- In Georgia 59 of 67 (88.1%) households spoke Spanish; and
- There was little variation between SPARK and comparison families.

Health

The team asked parents to rate their children’s overall health as poor, fair, good, very good, or excellent. Two (.4%) parents described children as in poor health. Only 22 parents out of 517 (4.3%) described children as in fair health. All the rest were good or better. The

average health status reported in Georgia ($M = 3.42$) was significantly lower than other sites. Additional findings:

- 53 parents (10.3%) described children as having some form of special needs;
- 47 (9.1%) stated it was difficult to get the medical care their children needed; and
- 29 (5.6%) stated that medical needs prevented their children from doing things most children their own age could do.

Eighty-one children (15.7%) were using medications prescribed by a doctor, 6 (7.4%) in Georgia, 14 (17.3%) in Hawaii, 3 (3.7%) in New Mexico, 12 (14.8%) in Ohio, and 46 (56.8%) in North Carolina. Of those 81 children, 15 (18.5%) were taking medication for a condition expected to last more than 12 months.

Early Childhood Education

There were small differences between SPARK and comparison children in the type of primary child care arrangements that the children experienced in the pre-K 2008-2009 school year. Overall, 31 percent attended a public school pre-K program, 26 percent had center-based child care, 19 percent attended a Head Start program, 18 percent had care in the child's own home, 5 percent had child care in a private home (relative or non-relative), and 3 percent attended a family-child interaction program.

THE PARENTS

Out of 492 primary caregivers, 379 (77.0%) were born in the U.S. In New Mexico, 17 of 45 (37.8%) were born in the US. However, most children in the New Mexico sample were born in the U.S. Only five children were not.

Single Parents

Out of 492 households, 190 (38.6%) were headed by single parents. The primary caregiver was the mother in 436 out of 493 (88.4%) households. Other findings:

- In Ohio 22 out of 68 (32.4%) households were headed by single parents;
- In Hawaii 21 out of 67 (31.3%) households were headed by single parents; and
- In New Mexico only six out of 45 (13.3%) households were headed by single parents.

Income, Education, and Employment

The median household income was approximately \$20,000. Out of 460 households, 289 (62.8%) were enrolled in TANF and/or receiving food stamps. In Ohio 47 of 67 (70.1%) and in North Carolina 150 out of 219 (68.5%) were enrolled in TANF and/or receiving food stamps.

Of 493 primary caregivers, 134 (27.2%) did not complete high school. In Georgia, 50 out of 67 (75%) did not complete high school. There was little variation between all other sites.

Out of 487 households, 291 (60.0%) did not have a primary caregiver working full-time; 221 (45.4%) did not have a primary caregiver working full- or part-time.

SPARK Children and Comparison Children

A series of chi-square and t-tests revealed no significant differences between SPARK children and parents and the comparison children and parents in household composition (single- versus two-parent families), income, enrollment in TANF, eligibility for free and/or reduced lunch, or children's health status.

THE TEACHERS

As part of an effort to understand the classroom environment of the children, the team developed a teacher questionnaire for gathering information on the characteristics of both children's classrooms and their teachers. The questionnaire comprised 20 questions, covering such topics as the type of kindergarten class, the number of hours the class met per day, the types of learning centers in the classrooms, and a variety of demographic and linguistic characteristics of both the children and their teachers. Teachers were asked to complete this measure in the fall of 2009. The team acquired 48 completed teacher questionnaires from 11 schools across five sites.

Classrooms

Forty-seven of the 48 classrooms (98%) were characterized by the teachers as regular kindergarten classrooms. The one exception was an ungraded classroom. Forty-five (93.8%) of the classrooms met for 6 to 8 hours per day, with Hawaii and North Carolina having the shortest day at 5.5 hours each, and Georgia having the longest at eight hours per day. Class sizes ranged from 11 to 26 children, with a median of 20 children. The overwhelming majority of classrooms were well equipped with a variety of learning centers such as art areas, reading and listening areas, science or nature areas, and computer areas.

Teacher Characteristics

Forty-five teachers (93.8%) were female and 2 (4.2%) were male; one teacher did not identify gender. Thirty-four teachers (70.8%) described themselves as White or Caucasian, six (12.5%) as Black or African American, three (6.3%) as Asian, and one (2.1%) teacher as Native Hawaiian/Pacific Islander. None of the teachers identified as Native American or Alaska Native. Ten of the teachers (20.8%) reported that they were of Hispanic or Latino heritage.

Seventeen (39.5%) of 43 teachers had taught either preschool or Head Start, with 17 of 39 respondents (43.6%) having taught first grade and 16 of 40 respondents (40%) having previously taught second through fifth grade. Of the 38 teachers that responded to these questions, 10 had taught in a bilingual classroom (26.3%) and five of 39 had taught an ESL class (12.8%). Half of our sample had taught in their current school for 6.5 years or more, with eight teachers (16.7%) having taught in their current school for 15 years or more.

Ten teachers (20.8%) had obtained a Bachelor's degree, 13 (27.1%) had at least one year of coursework beyond the Bachelor's degree, and 21 (43.8%) had earned a Master's degree. Forty-two of the teachers (93.8%) had obtained regular certification, with 32 (66.7%) having obtained the highest level of certification available to them (permanent or long-term certification).

Students

Thirty-three teachers (68.8%) described having at least one student in their class who spoke a language other than English, with Spanish being cited most often. Five teachers (10.4%) indicated they had students who spoke Hawaiian or Creole, with one teacher each indicating that he or she had at least one student who spoke French, Arabic, Vietnamese, Chinese, Filipino, Bengali, Urdu, Samoan, or Navajo. Twenty-eight teachers (58.3%) said they had at least one child in their classrooms with Limited English Proficiency (LEP).

In order to examine the degree to which Spanish-speaking teachers were teaching in classrooms with Spanish-speaking students, the team ran a Chi Square test of independence. The results were statistically significant revealing that of the twenty-six teachers who indicated that they spoke Spanish, ten (38.5%) were in classrooms with Spanish-speaking students.

TRANSITIONS

Greater percentages of SPARK parents and children participated in all types of transition activities in the spring and summer of 2009 compared to comparison parents and children. Many more SPARK parents were given information about what children could expect in kindergarten compared to the parents of comparison children in Georgia and Hawaii. Almost three-fourths of the SPARK children in Hawaii (72.4%) actually visited a kindergarten classroom before entering school compared to about one-third (32.0%) of the comparison children. In Ohio, transitions summer camp was an important intervention during the SPARK intervention (2003-2008). Many more SPARK parents were given information about the schools children would attend in the fall compared to the parents of comparison children in North Carolina. (See Table 3 in Appendix D.)

INTERVENTIONS

The RKF Team attempted to reconstruct a history of SPARK-like interventions in which children participated during the spring and summer of 2009. Because SPARK projects varied by site, interventions included activities that were both directly and indirectly targeted for SPARK children and families. They were:

- Developmental screenings or assessments at age three years;
- Provision of learning advocates;
- Health screenings;
- SPARK-developed learning plans;

- Home visits by SPARK staff;
- Provision of learning materials;
- Education-oriented pre-kindergarten workshops;
- Parental participation in Parents as Teachers© (PAT);
- Consultation provided to the staff of early childhood education (ECE) settings; and
- Accreditation assistance to ECE programs.

WKKF required that all SPARK children receive an initial developmental screening or diagnostic assessment at age 3 years, and a learning advocate. Learning advocates were parents or other adults trained to support the educational development of pre-K children. The results do not reflect 100 percent participation on the part of SPARK children in these activities for several reasons:

- By the fall of 2009, most of the remaining SPARK programs no longer provided assessments or learning advocates;
- Parents may not have understood the term learning advocate as they were called another name in some projects, e.g. parent partner; or
- Parents may not have remembered that children were assessed at age 3 years or did not remember that the assessment was a benefit of SPARK enrollment.

The team decided to present the data exactly as reported by parents. (See Table 4 in Appendix D.) Except for participation in PAT, greater percentages of SPARK children received the interventions although many comparison children received SPARK-like interventions because they lived in communities where such services were available or attended schools designated as SPARK partners.

The results do portray site-specific programmatic interventions such as consultation to ECE settings and pre-K workshops in Hawaii and accreditation assistance in New Mexico. Because the Ohio project implemented more evaluation protocols compared to the other sites, no comparison children were known to receive SPARK-like interventions.

SCHOOL READINESS

The RKF follow-up team used two measures to assess kindergarten readiness: the Bracken Basic Concept Scales-Receptive and the Hawaii State Readiness Assessment. Parents assessed their children using the Preschool and Kindergarten Behavior Scales. (See Appendix C.)

Bracken Basic Concept Scales

The Bracken Basic Concept Scales-Receptive (Bracken) is a developmentally sensitive measure of children's basic concept acquisition and receptive language skills. The first five subscales of the Bracken comprise the School Readiness Composite (SRC) raw score which determines the starting point for subscales 6-10. The School Readiness Composite collectively represents the “readiness” concepts that parents and preschool programs

traditionally teach in preparation for formal education. The SRC is reported as either a scaled or composite score. The scaled SRC ranges from 0-19. Scores between 7 and 13 represent average development, scores of 13 and above represent advanced development, and scores of seven and below represent delayed development.

Composite scores are distributed across a wider scale, ranging from 40-160. Composite scores that range between 85 and 115 represent average development, scores of 115 and above represent advanced development, and scores of 85 and below represent delayed development. The Receptive Total Composite (RTC) score provides information about a child's overall conceptual development. The RTC score is formed by summing all the scaled scores of the SRC and the remaining subtests (6-10) and converting the sum to a composite score.

Results

SPARK children outperformed comparison children on all composite scores and subscales. (See Table 5 in Appendix D.) SPARK children outperformed the comparison children on the SRC in two of the five sites and outperformed the comparison children on the RTC in three of the five sites.

Effect Size

Effect size analysis comparing SPARK children to the comparison children demonstrated a noticeable and detectable difference in test scores in favor of the SPARK children on all composite scores and subscales. (See Table 6 in Appendix D.)

Hawaii State School Readiness Assessment

The Hawaii State Readiness Assessment (HRSA) is an assessment of kindergarten readiness that relies on kindergarten teachers' professional observation and judgment. Once the kindergarten teacher has become familiar with the developmental domains of the assessment, he or she then observes the children's behaviors during the first few weeks of school and records the observations according to the behaviors, concepts, or skills identified in each domain.

Results

Teachers assessed SPARK children as more ready for school compared to the comparison children, but the scores were not statistically significant. (See Table 7 in Appendix D.)

Preschool and Kindergarten Behavior Scales

The Preschool and Kindergarten Behavior Scales (PKBS) is a behavior checklist administered to parents to identify social skills and problem behavior of children ages 3 to 6 years old. The social skills scale measures positive social skill characteristics of well-adjusted children and the problem behavior scale measures problem behaviors with young children who are experiencing adjustment problems.

The PKBS is interpreted by standard scores. Standard scores compare individuals from different grades or age groups. All standard scores for the PKBS are based on a distribution with a mean of 100 and a standard deviation of 15. A standard score of 100

represents the mean score of a national normative sample. A higher standard score on the Social Skills Composite is desirable and indicates higher levels of social functioning. A lower Problem Composite Standard Score indicates less problematic behaviors.

Results

Parents rated SPARK children slightly higher than national norms and SPARK children slightly higher (104.16) compared to comparison children (102.13) on the Social Skills Composite Score. SPARK children in Hawaii, New Mexico, and Ohio also scored higher on the Social Skills Composite Score than the comparison children. However, there were no statistically significant differences on any scale or subscale between SPARK children and comparison children.

ADDITIONAL ANALYSES

Transition to School Practices and School Readiness

The team constructed a composite variable by summing the total number of transition-to-school practices that children received or in which they participated during the spring or summer of 2009. (Refer back to Table 3.)

Regardless of group membership, children who participated in more transition to school practices scored higher on both the Bracken SRC and the RTC composite scores. Table 8 below shows the correlation coefficients between total transition practices and the Bracken scores. Although the activities tended to benefit children as a whole, the relationship was stronger among the comparison children.

Table 8: Correlations between Total Transition Practices and the Bracken (BBCS)

Correlation Coefficients with Total Number of Transition Practices			
	All Children	SPARK	Comparison
Receptive School Readiness Composite (SRC)	.16** (n=458)	.08* (n=225)	.19** (n=224)
Receptive Total Composite (RTC)	.25** (n=441)	.15* (n=217)	.29** (n=233)
*P< .05, **p< .01			

The team also correlated the total number of SPARK-like interventions with the Bracken SRC and the RTC composite scores. The relationship between interventions and the Bracken was significant for the SPARK children, but not the comparison children. The result indicates that the interventions were effective only in the context of total SPARK programming. (See Table 9 below.)

Table 9: Correlations between Interventions and the Bracken (BBCS)

Correlation Coefficients with Total Number of Interventions			
	All Children	SPARK	Comparison
Receptive School Readiness Composite (SRC)	.10* (N=422)	.09* (n=205)	.00 (n=217)
Receptive Total Composite (RTC)	.22* (n=407)	.23** (n=198)	.07 (n=209)
*P<.05, ** p<.01			

DISCUSSION

Results from the RKF continue to show that the SPARK initiative yielded positive outcomes for school readiness. Descriptive analyses revealed that SPARK and comparison children were demographically similar (i.e., in age, gender, ethnicity, and early childhood education) providing confidence that group differences were not attributable to participant characteristics. Additionally, both SPARK and comparison groups consisted of vulnerable children that included ethnic minorities, children with parents born outside the US, families enrolled in TANF or receiving food stamps, and below average basic concept acquisition and receptive language skills.

Classrooms and Teachers

Classroom and teacher information signified that overall SPARK and comparison children attended schools with well-equipped classrooms and with skilled and experienced teachers. Classrooms tended to be learning environments equipped with art areas, reading and listening areas, science and nature areas, and computer areas. Teachers were well educated with about half having obtained at least a Bachelor’s degree. Also, teachers tended to have extensive past teaching experience. Students were placed with teachers who fit their language needs, as many students who primarily spoke Spanish were in classrooms with Spanish-speaking teachers.

Transition Activities

The team found that participation in transition activities was beneficial for all children regardless of group membership. Children who participated in more transition-to-school practices had scores on the Bracken School Readiness Composite compared to those who experienced fewer transition practices. The effect was stronger among the comparison children.

Kindergarten Readiness

Findings strongly suggest that the SPARK initiative led to positive kindergarten readiness outcomes. Analyses involving the Bracken Basic Concepts Scales-Receptive demonstrated better performance among SPARK children compared to comparison children.

Interventions

The team found that greater number of SPARK-like interventions, the greater the scores on both the Bracken SRC and the RTC composite scores. The relationship between interventions and the Bracken was significant for the SPARK children, but not the comparison children. This suggests that the interventions were effective only in the context of total SPARK programming.

The SPARK initiative helps children master basic learning concepts that are necessary for both cognitive and social development. Given that many of the SPARK children received learning materials, participated in an early learning workshop and/or attended a pre-K setting, these specific intervention activities contributed to school readiness and positive results in school behavior and skills.

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APPENDIX A. DESIGN AND METHOD

Walter R. McDonald & Associates, Inc. (WRMA) and the Ready Kids Follow-up (RKF) Team are pleased to submit the final report of the fall 2009 data collection to the W.K. Kellogg Foundation (WKKF). The purpose of the study is to assess the impact of the SPARK initiative on kindergarten readiness and success in school. With the use of common measures and data collection protocols, the study systematically assesses the impact of the initiative as well as six community-based intervention models.

THE READY KIDS FOLLOW-UP TEAM

The RKF Team conducted the study in consultation with the WKKF Program Director and an expert consultant in research and early care and education. The team consists of a Principal Investigator (PI), part-time Research Associates, five site coordinators representing former SPARK grantees in Georgia, Hawaii, New Mexico, North Carolina, and Ohio, and a consultant.

The PI is Patrick A. Curtis, Ph.D. Dr. Curtis was Project Director for the SPARK Initiative Level Evaluation Team since the fall of 2001. The site coordinators are Kevin Baldwin, Georgia; Morris Lai, Hawaii; Marah Moore, New Mexico; Jessica Jones, North Carolina; and Peter Leahy, Ohio. The consultant is Adam Winsler, Ph.D. Dr. Winsler is a professor in applied developmental psychology at George Mason University and is the editor of the journal *Early Childhood Research Quarterly*.

DESIGN

There are four data collection periods.

1. Fall of 2008, Cohort 1 entered kindergarten;
2. Spring of 2009, Cohort 1 completed kindergarten;
3. Fall of 2009, Cohort 2 entered kindergarten; and
4. Spring of 2010, Cohort 1 completed first grade and Cohort 2 finished kindergarten.

The original intent was to identify and recruit 150 SPARK children and 150 non-SPARK children at each data collection point. Problems in start-up resulted in an N of 188 for the fall of 2008, but then an N of 517 in the fall of 2009. The team illustrates the plan in Table 1.

Table 1. Ready Kids Follow-up

July 2008 – June 2009		July 2009 – June 2010		July 2010 – December 2010
Fall	Spring	Fall	Spring	
Cohort 1: kindergarten, age 5	Cohort 1 follow-up: ages 5-6		Cohort 1 first grade follow-up: ages 6-7	Analysis and dissemination
		Cohort 2: kindergarten, age 5	Cohort 2 kindergarten follow-up: ages 5-6	

EVALUATION QUESTIONS

The team designed data collection and analyses to answer the following evaluation questions:

- What were the demographic characteristics of the children, parents, and teachers?
- How were SPARK children ready for kindergarten compared to comparison children?
- What was the relationship between readiness and SPARK interventions?
- What other factors such as health and access to health care were related to readiness?

MEASURES

There were four sources of data:

1. Children: literacy and numeracy;
2. Parents: participation in SPARK, child and family demographics, children’s social/emotional development, transition activities, school readiness, health, and access to health care;
3. Teachers: children’s social/emotional development, transition activities, and school readiness; and
4. Schools: school demographics and performance and in the end-of-school year assessments, children’s attendance, grade retention, and grades.

DATA COLLECTION AND DATA MANAGEMENT

The team conducted training for the systematic implementation of the data collection protocols. The team also provided ongoing technical assistance for the data collectors during the course of the study. Site coordinators distributed data collection packets to the

data collectors who arranged one-on-one assessments with children as well as data collection from teachers and parents. Site coordinators sent the completed data packets to the PI and arranged for the incentive payments to teachers and parents.

APPENDIX B. FIVE PROGRAM MODELS

The W.K. Kellogg Foundation (WKKF) launched the SPARK initiative in 2001. WKKF awarded grants in seven States and the District of Columbia to get children ready for school and schools ready for children. WKKF identified three outcome and impact areas: ready kids, ready schools, and ready communities. A Phase I planning grant provided the opportunity for each grantee to create community-wide partnerships and action plans, which targeted specific populations of vulnerable children. Phase II implementation began in mid 2003 and ended in May 2008.

IMPLEMENTATION STRATEGIES

The grantees implemented various strategies for school readiness and success in school, but two patterns emerged: (1) providing direct services; and (2) improving the environments in which children develop and learn.

Direct Services

Direct Services refers to face-to-face contact between SPARK staff or other providers with children and their families. These included casework services, home visiting, assessment and referrals to additional services in the community, and other face-to-face activities. Some grantees provided English as Second Language (ESL) classes, GED classes, family literacy programs, financial management workshops, computer training, and self-help workshops.

Quality Improvement

Quality improvement refers to grantee efforts to strengthen the environments in which children learn. Examples include professional training, consultation, grants to child care settings, curriculum development, and accreditation support.

FOUR PROGRAM MODELS

The following descriptions are brief summaries of SPARK interventions in those four sites that participated in the Ready Kids Follow-up (RKF). The team also included a description of how each site selected its comparison children.

Georgia

In May of 2003 WKKF awarded Smart Start, the early learning division of the United Way of Metropolitan Atlanta, a total of \$4 million over five years to implement SPARK Georgia. SPARK Georgia utilized a community-based approach to identify, recruit, enroll, and provide services to nearly 800 children and their families in Central DeKalb and Gwinnett counties. The grantee organized its activities around eight hubs. Hubs were early care and education facilities, Head Start providers, or community agencies.

Potential enrollees included families with three-year-old children who lived in the communities, planned to reside in the communities for the foreseeable future, and had one or more characteristics that suggested they were “at-risk” for less than optimal school outcomes. The SPARK Georgia intervention consisted of two distinct levels of service – the intensive Parents as Teachers (PAT) and a less comprehensive level of services. Both levels received in-home visits, completion of developmental and health screenings, and delivery of enrichment services through the hubs.

RKF Comparison Children

The control sample for the Ready Kids Follow consisted of children similar to the SPARK children. They come from the same communities, attend the same schools, and share many of the same characteristics (e.g., primarily Spanish-speaking, low SES) as the SPARK sample of children. The control children have been exposed to the systems-level SPARK intervention, such that they have attended SPARK schools in one of our SPARK districts. What distinguishes them from our SPARK children is that they did not receive the family-focused intervention, either PAT or the less comprehensive level of services.

Hawaii

Prior to beginning kindergarten, SPARK children participated in Keiki Steps, Keiki Steps to Kindergarten, or both. Keiki Steps provides a safe and fun learning environment with culturally enriching experiences that promote school success for Native Hawaiian children. The program offers a free tri-weekly Family-Child Interaction session in communities with a high percentage of Native Hawaiians. The curriculum aligns with the Hawaii Preschool Content Standards with attention to:

- Facilitation of “Parents as the child’s first teacher;”
- Parent Education;
- Developmental screening through the Ages and Stages Questionnaire, Peabody Picture Vocabulary Test, and Ounce Scale Assessments; and
- Implementation of Language is the Key, a curriculum for parents helping children to read.

Keiki Steps to Kindergarten (KSTK) is a free two to three-week summer transition program that helps entering kindergarten students adjust to the school. Parents/guardians have the opportunity to learn what is expected in kindergarten and how to help their child succeed in school.

RKF Comparison Children

The comparison group attended the same elementary school as the SPARK children, but did not participate in either Keiki Steps or KSTK.

New Mexico

New Mexico SPARK focused on changing the way various systems that young children experience, e.g. early care and education, elementary schools, community-based services, interact with and supported one another. A primary focus was to increase alignment of

these systems in relationship to transitioning children from pre-school into elementary school.

New Mexico SPARK provided very few direct services. Some sites provided books, backpacks, school clothes, etc. to children. Others provided workshops for parents, or assigned a specific parent liaison to work with parents in a particular class. Some sites conducted joint professional development activities for teachers.

In New Mexico, being a SPARK kid also meant attending a SPARK school. A SPARK school was committed to working collaboratively with early childhood centers, parents, community providers, and business persons to create smooth transitions for young children. Using a framework created in New Mexico called Joining Hands, NM SPARK schools developed transition teams to plan, develop and implement activities, practices and policies that ensured that young children will move from early learning centers into public school systems ready for school. The Joining Hands framework consisted of a set of eight principles: 1) Communication, 2) Equal Partners/Joint Decision Makers, 3) Comprehensive and Responsive Services, 4) Families as Partners, 5) Knowledge and Skill Development, 6) Culture and Home Language, 7) Developmentally Appropriate Practice, and 8) Assessment of Partnership Effectiveness.

The connections and the relationships built amongst the early childhood community were the most valuable outcome of participation on the teams. Many teams found opportunities for joint professional development, ways to align curriculum, calendar sharing and systems to transfer information about children (i.e. assessment information) with the children.

RKF Comparison Children

New Mexico recruited children that came from non-SPARK pre-K. They were recruited by teachers as well as by evaluation staff.

North Carolina

North Carolina SPARK focused on creating a system of services for children that provides access to high quality early education, transition and family support, and Ready Schools. The Down East Partnership for Children (DEPC), in conjunction with local school districts, implemented a coordinated subsidy system that screens children and connects the most at-risk children with high quality pre-kindergarten through the More at Four/Public Pre-Kindergarten program. These children and their families are targeted for participation in transition activities, parent education activities, and/or other resources in the community to meet their needs. DEPC also works with local elementary schools on the Ready Schools Innovation Awards process to build their capacity to meet the needs of all children.

RKF Comparison Children

SPARK children attended four elementary schools that have participated in the Ready Schools process. Children also attended a More at Four pre-Kindergarten classroom (either through a center-based child care, Head Start, or Public Pre-Kindergarten). The comparison children were children attending the same elementary schools as the SPARK children, but did not attend More at Four or Public Pre-Kindergarten program the year

prior to kindergarten. However, comparison children may have had early care experience through other resources in the community.

Ohio

SPARK Ohio is a parent-focused intervention program designed to empower the parent or guardian as their child's primary educator or learning advocate. Focusing on 3 and 4 year olds, a parent-partner, generally a paraprofessional, works directly with the child's caretaker through monthly home or group visits. The program includes structured lesson plans and activities aligned with Ohio's Early Learning Content Standards, developmental assessments and screenings at program entry and at prescribed times throughout the year, and referrals to needed community resources by a SPARK Responsive Services Team.

SPARK Ohio began in the 2002-03 school year. Through June 30, 2008, seven hundred seventy seven (777) unique children were referred for in-depth screenings and assessments while five hundred thirty two (532) were referred for 1,481 combinations of follow-up services.

SPARK Ohio also focuses on preparing elementary schools to receive and respond to all children and families through its role as a co-sponsor of the Ohio Ready Schools Resource Guide and the Ohio Ready Schools Initiative, the latter initially piloted in SPARK Ohio schools.

RKF Comparison Children

For the Ready Kids Follow-up study, one SPARK site, Alliance, Ohio, was selected for inclusion in the study. Alliance includes both urban and rural families, a microcosm of the entire SPARK Ohio program. Alliance also filters all kindergarten children into one facility, the Alliance Early Learning Center, making the logistics of conducting child, teacher and parent interviews more manageable. To select the SPARK treatment group, we invited all SPARK families with a child entering Kindergarten in the fall of 2008 to participate in the study. The first 30 SPARK children (of the 38 SPARK children entering kindergarten), whose parents signed the informed consent form, were included in the study.

Comparison children were selected from among the kindergarten children who did not participate in SPARK. The first 35 non-SPARK children (of the 210 non-SPARK children entering kindergarten), whose family signed the informed consent form when approached at kindergarten registration, were included as the comparison children.

APPENDIX C. READY KIDS FOLLOW-UP DOMAINS, MEASURES, AND DATA POINTS

First Cohort Kindergarten in fall 2008: Data, Data Source, Data Collection Timelines

Assessed Domains	Data Collection Point 1 Kindergarten (Fall, 2008)	Data Collection Point 2 End of Kindergarten (Spring, 2009)	Data Collection Point 4 End of First Grade (Spring, 2010)
Cognitive Development (Academic Achievement)	Bracken Basic Concept Scales (data source: students) Hawaii School Readiness Assessment (data source: teachers)	Bracken Basic Concept Scales (data source: students)	Mock Report Card, School Outcomes, and Parental Involvement (data sources: data collectors, teachers, other school personnel)
Social/Emotional Development (Behaviors)	Preschool & Kindergarten Behavior Scales (data source: parents)	Preschool & Kindergarten Behavior Scales (data sources: teachers & parents)	Preschool & Kindergarten Behavior Scales (data sources: teachers & parents)
Other (participation in SPARK, demographics, transition activities, health, access to health care)	Parent/Child Survey (data source: parents & data collectors) Teacher Background and Classroom Assessment (data source: teachers)	Parent/Child Survey Revised (data source: parents & data collectors)	Parent/Child Survey Revised (data source: parents & data collectors) Teacher Background and Classroom Assessment (data source: teachers)
Incentives	Data collector: \$75 per data packet Children: books Parents: \$25 Teachers: \$10 per child plus \$10 for Teacher B & C Assessment	Data collector: \$75 per data packet Children: books Parents: \$25 Teachers: \$20 per child	Data collector: \$65 per data packet Children: DNA Parents: \$25 Teachers: \$30 per child plus \$10 for Teacher B & C Assessment

APPENDIX D. RKF DATA TABLES

Table 3: Child Participation in Transition Activities (Spring/Summer 2009)

	All Sites N= 494		Georgia N= 67		Hawaii N= 67		New Mexico N= 48		Ohio N = 68		North Carolina N= 246	
	SPARK N = 247	No SPARK N = 246	SPARK N = 23	No SPARK N = 44	SPARK N = 29	No SPARK N = 38	SPARK N = 26	No SPARK N = 19	SPARK N = 34	No SPARK N = 34	SPARK N =135	No SPARK N = 111
Information provided to parents about K	183 (74.1)	147 (59.8)	19 (83.0)	17 (39.0)	26 (89.7)	17 (45.0)	19 (73.1)	13 (68.4)	34 (100.0)	32 (94.1)	85 (63.0)	68 (62.3)
Spring sign-up for K	149 (60.3)	117 (47.6)	18 (78.3)	17 (39.0)	14 (48.3)	11 (29.0)	18 (69.2)	12 (63.2)	32 (94.1)	32 (94.1)	67 (49.6)	45 (41.0)
Summer camp	62 (25.1)	40 (16.3)	19 (83.0)	10 (23.0)	3 (10.3)	2 (5.3)	0	1 (5.3)	24 (70.6)	16 (47.1)	16 (11.9)	11 (9.9)
Home visit by K teacher	7 (2.8)	3 (1.2)	0	1 (2.3)	1 (3.4)	0	0	1 (5.3)	2 (5.9)	0	4 (3.0)	1 (0.9)
Child visited K classroom	162 (65.6)	130 (53.0)	16 (70.0)	10 (23.0)	21 (72.4)	12 (32.0)	21 (80.8)	16 (84.2)	33 (97.1)	31 (91.2)	69 (51.1)	40 (36.0)
Informed about Schools	22 (8.9)	21 (8.5)	16 (70.0)	8 (18.0)	12 (41.4)	10 (38.5)	21 (80.8)	15 (79.0)	30 (88.2)	26 (76.5)	50 (37.0)	8 (7.2)

Table 4: SPARK Interventions (Spring/Summer 2009)

	All Sites N= 502		Georgia N= 67		Hawaii N= 68		New Mexico N= 45		Ohio N= 72		North Carolina N = 250	
	SPARK N = 251	No SPARK N = 251	SPARK N = 23	No SPARK N = 44	SPARK N = 30	No SPARK N = 38	SPARK N = 26	No SPARK N = 19	SPARK N = 34	No SPARK N = 38	SPARK N = 138	No SPARK N = 112
Learning Advocate	77 (30.7)	3 (1.2)	0	0	19 (63.3)	1 (2.6)	24 (92.3)	2 (10.5)	34 (100)	0	0	0
Consultation to ECE setting	42 (16.9)	8 (3.2)	0	0	28 (93.3)	1 (2.6)	0	2 (10.5)	0	0	14 (10.3)	5 (4.5)
Initial developmental screening	142 (56.8)	48 (19.2)	2 (8.7)	0	27 (90.0)	1 (2.6)	22 (84.6)	7 (36.8)	34 (100)	0	57 (41.6)	40 (36.0)
SPARK learning plan	46 (20.5)	1 (0.4)	2 (8.7)	0	7 (23.3)	0	3 (11.5)	1 (5.3)	34 (100)	0	0	0
Home Visits	77 (30.8)	30 (12.0)	2 (8.7)	1 (2.3)	0	0	7 (26.9)	4 (21.1)	34 (100)	0	34 (24.8)	25 (22.5)
PAT	12 (4.8)	11 (4.4)	2 (8.7)	0	1 (3.3)	0	0	0	0	0	9 (6.6)	11 (9.9)
Health screenings	110 (44.0)	66 (26.4)	1 (4.3)	1 (2.3)	3 (10.0)	0	17 (65.4)	8 (42.1)	34 (100)	0	55 (40.1)	57 (51.4)
Learning materials	149 (59.8)	58 (23.2)	5 (21.7)	3 (6.8)	0	4 (10.5)	21 (80.8)	4 (21.1)	34 (100)	0	59 (43.4)	47 (42.3)
Accreditation assistance to ECE setting	20 (8.0)	8 (3.2)	0	0	0	0	20 (76.9)	8 (42.1)	0	0	0	0
Pre-K workshops	69 (27.5)	25 (10.0)	0	0	27 (90.0)	1 (2.6)	20 (76.9)	6 (31.6)	0	0	22 (16.2)	18 (16.4)

Table 5. Bracken Basic Concept Scales (All Sites)

Bracken Basic Concept Scales (BBCS-R)		All Sites SPARK (n= 232) Comparison (n= 249)	Georgia SPARK (n = 22) Comparison (n= 43)	Hawaii SPARK (n= 31) Comparison (n= 50)	New Mexico SPARK (n= 18) Comparison (n= 16)	Ohio SPARK (n= 34) Comparison (n= 37)	North Carolina SPARK (n = 127) Comparison (n = 103)
SRC- Scaled Score	SPARK	8.66**	8.32	9.58	8.17	9.53*	8.33
	Comparison	7.83	7.09	8.44	9.25	8.05	7.53
Receptive SRC Composite Score	SPARK	93.31**	92.00	97.87	91.39	97.35*	91.58*
	Comparison	88.91	84.95	92.52	95.94	89.97	87.33
Subset 6: Direction/Position Scaled Score	SPARK	8.63**	6.73	8.45	10.17	9.76*	8.48
	Comparison	7.55	6.07	7.52	9.25	8.14	7.69
Subset 7: Self/Social Awareness Scaled Score	SPARK	8.34**	7.55*	8.29	9.17	8.71	8.28
	Comparison	7.43	6.12	7.47	9.19	7.70	7.59
Subset 8: Texture/Material Scaled Score	SPARK	8.19*	6.86	8.19	10.17	8.74	7.98
	Comparison	7.55	5.90	7.24	9.25	8.49	7.75
Subset 9: Quantity Scaled Score	SPARK	8.56**	7.73	8.48*	10.83	9.24	8.22
	Comparison	7.67	6.64	7.14	10.44	8.43	7.64
Subset 10: Time/Sequence Scaled Score	SPARK	8.45*	7.43*	8.40	10.22	9.38	8.13
	Comparison	7.86	6.45	7.51	10.06	8.46	8.04
Receptive Total Composite Score	SPARK	90.95**	84.70*	92.03*	98.94	95.32*	89.28
	Comparison	85.63	77.80	84.96	97.69	89.22	85.85

** Significant at $p \leq .01$ *Significant at $p \leq .05$

Table 6: Bracken Basic Concept Scales (All Sites) – Effect Size

	SRC Scaled Score	Receptive SRC Composite Score	Subset 6: Direction/Position Scaled Score	Subset 7: Self/Social Awareness Scaled Score	Subset 8: Texture/Material Scaled Score	Subset 9: Quantity Scaled Score	Subset 10: Time/Sequence Scaled Score	Receptive Total Composite Score
SPARK								
\bar{x}	8.66	93.31	8.63	8.34	8.19	8.56	8.45	90.95
<i>n</i>	230	230	232	232	228	231	228	222
<i>SD</i>	2.65	13.26	2.91	2.50	2.63	2.57	2.47	13.03
Comparison								
\bar{x}	7.83	88.91	7.55	7.43	7.55	7.67	7.86	85.63
<i>n</i>	249	249	247	246	244	246	245	240
<i>SD</i>	3.33	17.07	3.23	2.87	3.04	3.12	2.70	16.42
<i>SD of Combined Groups</i>	3.04	15.50	3.12	2.73	2.86	2.90	2.60	15.11
Effect Size	.26	.29	.35	.34	.23	.31	.23	.34

Table 7. Hawaii State Readiness Assessment

Hawaii State Readiness Assessment (HSRA)		All Sites SPARK (n= 243) Comparison (n= 242)	Georgia SPARK (n =14) Comparison (n= 22)	Hawaii SPARK (n= 32) Comparison (n= 51)	New Mexico SPARK (n= 26) Comparison (n=19)	Ohio SPARK (n= 34) Comparison (n=38)	North Carolina SPARK (n =137) Comparison (n =112)
Approaches to Learning	SPARK	13.51	14.21	12.94	13.77	14.15	13.37
	Comparison	13.29	13.41	13.06	13.58	13.34	13.29
Academic Literacy	SPARK	13.66	14.43	13.66	13.23	14.53	13.45
	Comparison	13.39	13.32	13.41	13.17	13.53	13.39
Academic Math	SPARK	13.53	14.57	13.75	13.27	14.74	13.12
	Comparison	13.21	13.95	13.57	12.53	13.55	12.91
School Behavior and Skills	SPARK	14.14	14.79	13.16	14.19	14.00	14.32
	Comparison	14.04	15.14	13.69	14.00	13.53	14.17
School Emotional Behaviors	SPARK	13.99	14.43	13.38	14.04	14.21	14.03
	Comparison	13.87	14.82	13.65	13.79	13.39	13.96
Physical Well-being	SPARK	15.05	15.79	14.38	15.00	14.97	15.15
	Comparison	14.85	15.43	14.45	15.21	14.13	15.10
Overall Score	SPARK	83.88	88.21	81.25	83.50	86.59	83.45
	Comparison	82.68	86.66	81.82	82.06	81.47	82.82