



Nebraska Early Childhood Education Grant Program

July 1, 2005 – June 30, 2006

Annual Evaluation Report

Nebraska Early Childhood Education Grant Program 2005-2006 Program Year Evaluation Report

Historical Perspective

Legislative Bill 759 was enacted in the 2001 Legislative Session. It revised the Early Childhood Act originally passed in 1990 (79-1101 through 1104 R.R.S.) which enabled the funding of ten pilot Early Childhood Projects. The action to revise the law and to increase the funding (from \$560, 000 to \$2,097,000) was a part of Nebraska's early childhood initiative, *Children Can't Wait*. In 2005-2006, funding was increased to a total of \$3,680,000. The Early Childhood Education Grant Program is administered by the Nebraska Department of Education, Office of Early Childhood.

Purpose

The Nebraska Early Childhood Education (ECE) Grant Program is designed to award state funds to public schools or Educational Service Units (ESUs) to assist in the operation of comprehensive early childhood education programs intended to support the learning and development of children in the birth to kindergarten age range. The programs increased opportunities for at-risk children to participate in early childhood education programs by creating new, expanded and/or combined programs funded through district, federal, or parent fees, and involved collaboration with Head Start and other community programs. The purpose of Nebraska's ECE Grant Program is to provide high quality early childhood education program experiences that assist children to reach their full potential and increase the likelihood of their later success in school. Major emphases for the ECE grant programs include:

- ✚ Support for *inclusive, integrated programs/services* that include categorically and economically diverse groups of children. The intent is to help communities move away from categorical to inclusive service delivery models.
- ✚ A strong *emphasis on family participation*, in recognition of the critical role of parents in assuring that children grow up in positive, supportive environments that encourage their early development and learning.
- ✚ Attention to *research-based elements of effective programs*. These include: teachers trained to work with young children; optimum adult/child ratios and group size; sufficient intensity and duration of programs; a curriculum based on knowledge about child growth and development, including an emphasis on age-appropriate language and early literacy experiences; and ongoing program improvement processes.

What is the purpose of the evaluation?

The purpose of the Nebraska ECE Grant Program evaluation is to provide: (a) descriptive information regarding the program; (b) descriptive child data; and (c) outcome data to assist in determining the extent to which the program achieved its anticipated outcomes. This was accomplished by collecting data across multiple sources and forms using quantitative approaches. The evaluation plan describes the specific evaluation activities for each of the ECE Grant Program objectives. Implementation of the evaluation plan was accomplished through the joint efforts of the early childhood education program staff and program evaluation staff. The following provides a description of the program and findings during the 2005 - 2006 year of program implementation.

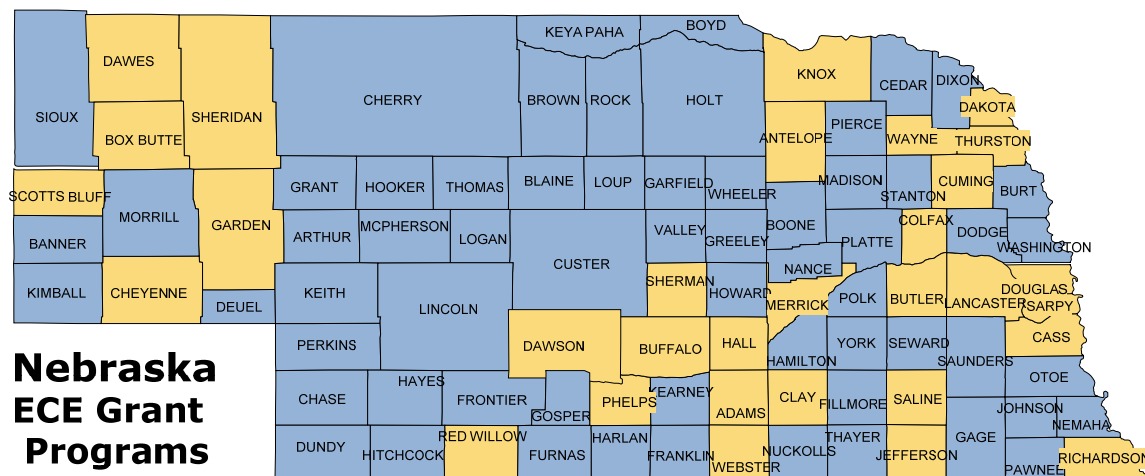
Evaluation Plan for the Nebraska Early Childhood Education Grant Programs

Objectives	Process Evaluation	Outcome Evaluation
<i>To provide a high quality early childhood education program setting.</i>		Evaluation of the quality of the program using environment rating scales. Documentation of program accreditation.
<i>To assist children to reach their full potential and increase the likelihood of children's later success in school.</i>	Documentation of children's participation in ECE Grant Program	Evaluation of children's (birth – 5 years) development. Long term tracking of academic achievement of children who participated in ECE grant programs.

Where are the Nebraska Early Childhood Education Grant Programs?

In the 2005-2006 year, Nebraska Department of Education provided ECE Grant Program funds to 38 districts or Educational Service Units across the state to operate early childhood education (ECE) programs. These programs have been funded from one to fourteen years.

- | | |
|--|---|
| <i>Alliance Public Schools</i> | <i>Bancroft-Rosalie Community Schools</i> |
| <i>Central City Public Schools</i> | <i>Centura Public Schools</i> |
| <i>Chadron City Schools</i> | <i>Conestoga Public Schools</i> |
| <i>Crete Public Schools</i> | <i>David City Public Schools</i> |
| <i>Douglas County West Community Schools</i> | <i>Elgin Public Schools</i> |
| <i>ESU 9</i> | <i>Fairbury Public Schools</i> |
| <i>Falls City Public Schools</i> | <i>Garden County Public Schools</i> |
| <i>Gering Public Schools</i> | <i>Grand Island Public Schools</i> |
| <i>Holdrege Public Schools</i> | <i>Humboldt Table Rock Steinauer</i> |
| <i>Kearney Public Schools</i> | <i>Lexington Public Schools</i> |
| <i>Lincoln Public Schools</i> | <i>Loup City Public Schools</i> |
| <i>McCook Public Schools</i> | <i>Millard Public Schools</i> |
| <i>Omaha Public Schools</i> | <i>Overton Public Schools</i> |
| <i>Papillion LaVista Public Schools</i> | <i>Plattsmouth Community Schools</i> |
| <i>Santee Community School</i> | <i>Schuyler Grade School</i> |
| <i>Sidney Public Schools</i> | <i>South Central Unified #5</i> |
| <i>South Sioux City Community Schools</i> | <i>Southeast Consolidated Schools</i> |
| <i>Southwest Public Schools</i> | <i>Umon'hon' Nation Public School</i> |
| <i>Wakefield Community School</i> | <i>Walthill Public Schools</i> |



ECE grant programs are located in the gold (light shaded) areas.

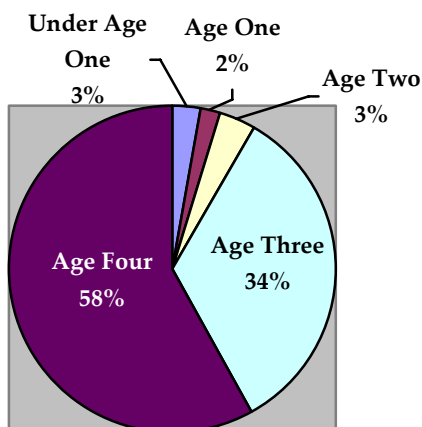
Who are the Children Served?

The ECE grant programs are required to serve children in inclusive classrooms that represent the range of abilities and disabilities of the children and the social, linguistic, and economic diversity of the families. The early childhood education programs target prekindergarten-age children:

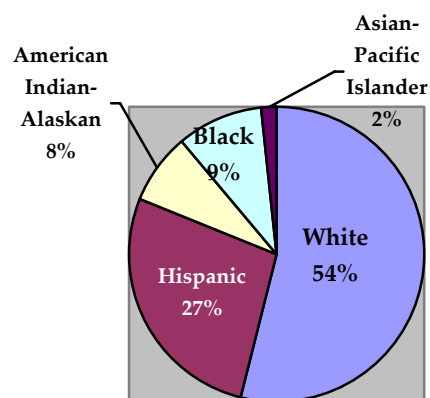
- 1) whose family income qualified them for participation in the federal free or reduced lunch program;
- 2) who reside in a home where a language other than English is used as the primary means of communication;
- 3) who were born prematurely or at low birth weight as verified by a physician; or
- 4) whose parents were younger than eighteen or who had not completed high school.

In 2005-2006, a total of 1,483 children were served across the 38 funded programs. In 2004-2005, a total of 1,068 children were served when 27 districts or ESUs were funded. Typical classroom sizes ranged from 16 to 20 children. The majority of the programs served preschool children and their families. Four-year-old children were the largest age group represented, followed by three-year-olds. Fewer were served in the younger age groups below age three. The single largest ethnic group was White not Hispanic, followed by Hispanic.

Report of Children Served – By Age



Report of Children Served – By Ethnicity



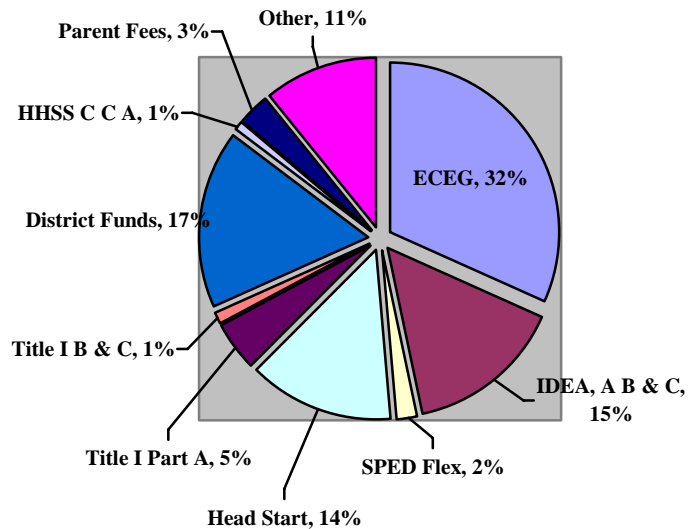
The ECE grant programs primarily served children from low-income families. Nearly half of the children (48%) were eligible for free lunch and another 15% were eligible for reduced lunch rates. Many children (23%) had a home language other than English. The programs served a very small number of children (5%) who were premature or low birth weight. Some children (11%) had parents who were less than 18 years of age or were not high school graduates.

Funding for the Early Childhood Education Grant Programs

Each program awarded a grant receives state funding for up to one-half of the total operating budget of the program. Additional funding sources available to programs include, but are not limited to: Head Start, Even Start, Special Education, local district funds, and parent fees. Many programs operate multiple classrooms. Programs are eligible to receive state funding as long as the Legislature appropriates the funds and the programs operate in accordance with the requirements of the Nebraska Department of Education.

Overall operational budgets totaled \$10,952,700 in the 2005-2006 program year. This included in-kind contributions. Nebraska ECE grant funding represented approximately 32% of the overall operational expenditures. The remaining 68% match, clearly exceeded the Nebraska Department of Education’s 50% requirement. The largest categories of funding included: Nebraska ECE Grant Program (32%), local district funds (17%), special education funds (17%), and Head Start (14%). Together, these categories accounted for more than 60% of the funding.

Distribution of Funding



Program Evaluation Findings

Nebraska Early Childhood Education Grant Programs are of High Quality

Quality early childhood education programs have been linked to immediate, positive developmental outcomes, as well as long-term positive academic performance (Burchinal, Peisner-Feinberg, Bryant, & Clifford, 2000; Ramey & Ramey, 1998). Environment rating measures were used to evaluate the quality of the early childhood education (ECE) grant programs.

The evaluation tools to monitor the quality of the ECE grant programs included: the Infant/Toddler Environment Rating Scale-Revised (ITERS-R) (Harms, Cryer & Clifford, 2004) or the Early Childhood Environment Rating Scale-Revised (ECERS-R) (Harms, Clifford & Cryer, 1998) and the Early Language and Literacy Classroom Observation (ELLCO) (Smith, Dickinson, 2002). The Nebraska Department of Education required that the early childhood education programs achieve an overall rating of 5 or higher on each of the scales (on a scale of 1 to 7) for the ITERS-R or ECERS-R, and a 67% of possible score or better on the ELLCO. This expectation is the state required level of quality. Comparison data were obtained by completing either the ITERS-R or the ECERS-R and ELLCO on at least one sample classroom for each funded program. Programs that attained National Association for the Education of Young Children (NAEYC) accreditation during the year were not required to complete environment rating measures because the accreditation process itself included observation data. A total 24 programs (63%) have received NAEYC accreditation.

To monitor the quality of the programs, external observers were used to observe and rate at least one classroom per funded program in the fall of 2005. If the classroom met the state required level of quality, a spring observation was not necessary. If, however, the classroom was rated below these quality standards, the program completed a program improvement plan and a spring observation was required. Observers were trained and inter-rater reliability was established annually through observer training jointly conducted by the Nebraska Department of Education, Office of Early Childhood, and the Early Childhood Training Center.

Environment Rating Scales

Early Childhood Environment Rating Scale-Revised (ECERS-R). The ECERS-R was used to evaluate the overall quality of the classrooms. The mean ratings across the 28 classrooms observed were 5 or higher on all sub-scores and overall. More positively rated sub-scores across the classrooms (average rating of 6 or greater) included language-reasoning, interactions, program structure, and supports for parents and staff. There was some variability across individual classrooms observed. For example, learning activities ranged from 3.10 to 7.00. Four classrooms did not meet the state required level of quality by the end of the program year. However, three of these classrooms were first year programs. A decline in mean ratings this year was anticipated given the award of new grants to 11 new school districts. These districts established new classrooms, some of which began in the middle of the school year. A review of ECERS-R ratings was one piece of the continuous improvement process used with both continuing and new grantees to improve the quality of the services provided to children. One existing grantee did not meet the state required level of quality at the spring re-observation. That program developed an action plan for program improvement and will be re-observed in the fall of 2006.

ECERS-R Sub-scores and Overall Score

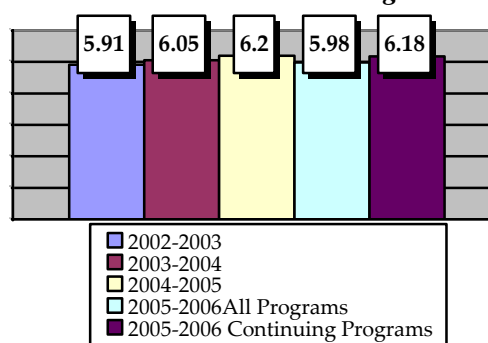
	Space & Furnishings	Personal Care Routines	Language-Reasoning	Learning Activities	Interaction	Program Structure	Parents & Staff	Overall Rating
2005-2006	5.92	5.94	6.09	5.39	6.60	6.46	6.17	5.98
2004-2005	6.03	6.18	6.41	5.62	6.75	6.49	6.48	6.17

1 = inadequate 3 = minimal 5 = good 7 = excellent

Cross Year Comparisons. The preschool classrooms steadily improved in quality ratings over time until this program year when new grants were awarded to existing and new grantees. Existing programs were still rated highly (6.18).

The ECERS-R ratings for continuing grant programs in 2005-2006 had an overall average of 6.18.

ECERS-R Overall Ratings



Infant/Toddler Environment Rating Scale-Revised (ITERS-R). Two classrooms were observed and rated using the ITERS-R. One classroom met the state required level of quality and one did not. The classroom was re-observed in the spring and again did not meet the state required level of quality. Due to the small number of classrooms observed and rated, scores will not be reported in this evaluation.

Early Language and Literacy Classroom Observation

The Early Language and Literacy Classroom Observation, or ELLCO, (Smith & Dickinson, 2002) was used to measure the language and literacy practices of preschool classrooms across Nebraska. The ELLCO is composed of three interdependent research tools. The Literacy Environment Checklist (summarizes the organization and contents of the classroom); the Classroom Observation and Teacher Interview (gathers the



objective ratings of the quality of the language and literacy environment of the classroom); and the Literacy Activities Rating Scale (summarizes the information on the nature and duration of the observed literacy activities). A total of 28 preschool classrooms were observed. The average scores as well as the percentage of possible scores are displayed below. To meet Nebraska’s state required level of quality, a program must obtain a rating of 67% or higher on each of the three sections of the ELLCO.

Summary Scores on ELLCO

	Literacy Environment Checklist (Maximum of 41)	Classroom Observation (Maximum of 70)	Literacy Activities Rating Scale (Maximum of 13)
2005-2006	33.89 (83% of possible score)	61.36 (88% of possible score)	9.86 (76% of possible score)
2004-2005	35 (85% of possible score)	64 (91% of possible score)	11 (85% of possible score)

Literacy Environment Checklist. The Literacy Environment Checklist (LEC) section of the ELLCO measures the organization and contents of the classroom that foster book use and writing. To achieve the state required level or quality standard, programs must score at least 28 or higher. The maximum total score on this checklist is 41. The average rating across programs was 83%. A total of 23 (82%) of classrooms met the state required level of quality. One classroom did not meet the state required level of quality, requiring a spring observation. State required levels of quality were met in the spring. Four newly funded classrooms did not meet the state required level of quality

when rated in the spring. This is not unusual in a program's first year of operation. This observation data were shared as part of a continuous improvement process.

Classroom Observation. The Classroom Observation (CO) is designed to provide specific criteria about general classroom and language/literacy practices in classrooms based on 14 observation categories using a 5-point Likert scale (5 being exemplary). Typical items in this category include organization of the classroom, opportunities for child choice, classroom management and climate, presence of books, approaches to children's book reading and writing, and assessment. To achieve the state required level of quality standard, programs must score 47 or higher. The average score across programs was 61, which was 88% of the possible total score of 70. Most of the classrooms (96%) observed met the state required levels of quality. One newly funded classroom did not meet the state required levels of quality. Feedback was provided to the program for the purpose of continuous improvement.

Literacy Activities Rating Scale. The Literacy Activities Rating Scale (LARS) focuses on reading and writing activities observed in classrooms. A maximum score of 13 is possible. Book reading includes the number of sessions/minutes spent in full-group book reading, total number of books read, one-to-one or small-group book reading, and time set aside for children to look at books alone or with a friend. Writing includes observing children writing in their play, children attempting to write letters or words, adults helping children to write, and adults modeling writing. To achieve the state required level of quality standard, programs must score eight or higher. The average rating across programs was 76%. A total of 23 (82%) classrooms observed met the state required level of quality. One classroom was rated below the state required level of quality in the fall, but exceeded the state required level of quality in the spring. Four newly funded programs scored less than 8 on the LARS observation. Results were reviewed with each program for the purpose of continuous improvement of program quality.



Summary of Objective 1: High Quality Early Childhood Education Experiences

The majority of the ECE programs demonstrated high quality environments for young children, including provision of rich language and literacy environments. Several (36%) of the first year funded classrooms did not meet the state required level of quality. As a result there was a decline in mean ratings this year. It was anticipated some programs

would have somewhat lower scores during their first year of operation. The feedback provided to the programs was used to develop continuous improvement plans.

Children Reach their Full Potential and Experience Success in School

Both short-term and long-term developmental outcomes were assessed to determine the extent that children's development was positively associated with participation in the program. Programs used one of several developmental assessments to evaluate child outcomes, including: High/Scope Child Observation Record (COR) for Infants and Toddlers (2004) or Preschoolers (Brinkman, N., Barton, H., and Taylor, L, 2005) or Creative Curriculum Developmental Continuum (Dodge, et al, 2005). Long-term data were collected for those children who had participated in ECE grant programs and remained within the same school district. These analyses were based on math and reading scores on standardized achievement tests used by local school districts at 3rd or 4th, 8th and 11th grades.

Short-Term Developmental Outcomes

High/Scope Child Observation Record. The developmental skills of preschool children were monitored through the use of the High/Scope Child Observation Record (COR). COR outcome data provide scores for children on a 5-point scale, with 5 being the most advanced.

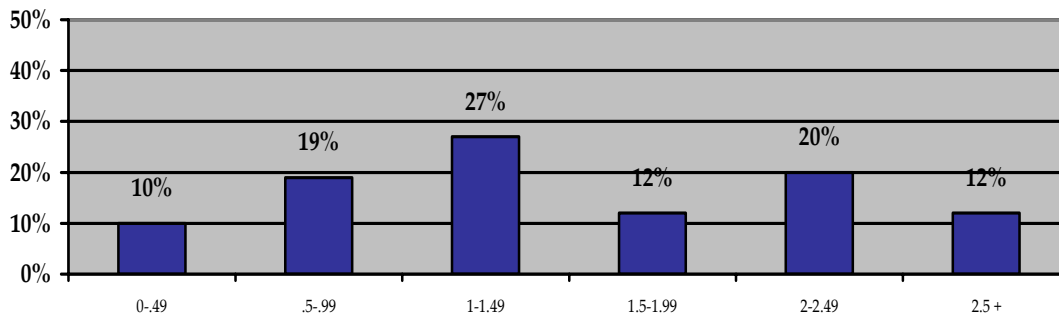
Twenty (20) programs provided outcomes on Preschool COR data for 517 children. Programs reported the number of children with observation data for both fall and spring. For evaluation, gain scores were reported for language/literacy and math/logic. The gain scores were categorized by levels of gain ranging from none to 2.5 or greater. The COR ratings range from 1 to 5 on each domain. Gain was determined by the difference from fall to spring ratings.

As a group, preschool children achieved positive gains in language/literacy and math/logic. Seventy-one percent (71%) of the children obtained 1 level or greater gains in language and literacy skills and 69% of the children obtained 1 level or greater gains in math and logic skills. The following graphs illustrate the percentage of children associated with each category of gain in language/literacy and math/logic.

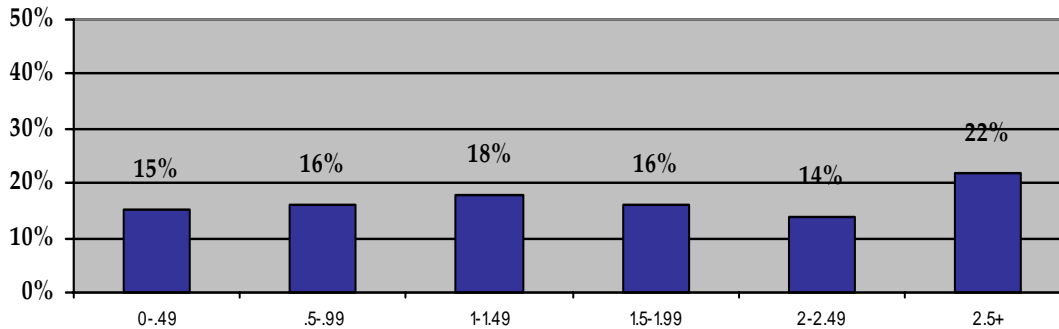
69% of the children obtained 1 level or greater gains in math and logic.

71% of the children obtained 1 level or greater gains in language and literacy.

Language/Literacy COR Gains



Math/Logic COR Gains



The Preschool COR data were examined to determine whether significant differences occurred when analyzed by gender or ethnicity. No significant differences were found for either gender or ethnicity. These results suggest that although groups of children started at different levels in the fall, by the spring the groups were scoring similarly.

Due to the small number of infants and toddlers that were assessed with the COR, the data for this group of young children was not analyzed.

Creative Curriculum Developmental Continuum. The developmental skills of preschool children were also monitored through the use of the Creative Curriculum Developmental Continuum (CCDC) for Ages 3-5.

Creative Curriculum outcome data provided scores for children based on a sequence of four steps, with each step on the continuum representing a more difficult developmental concept.

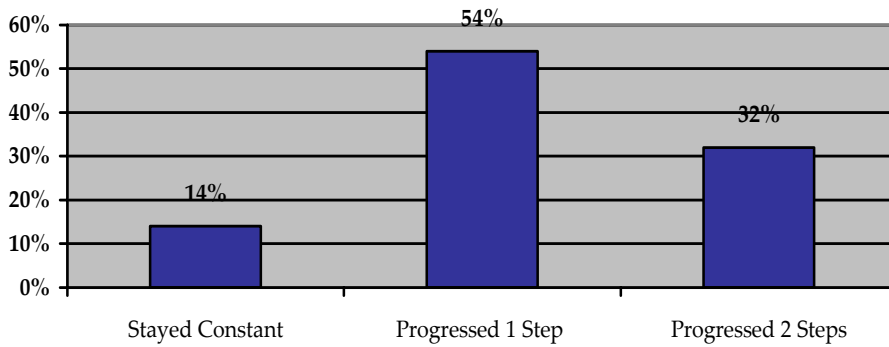
Four programs provided Creative Curriculum Developmental Continuum data for 50

86% of the children progressed one or more steps gain in language development.

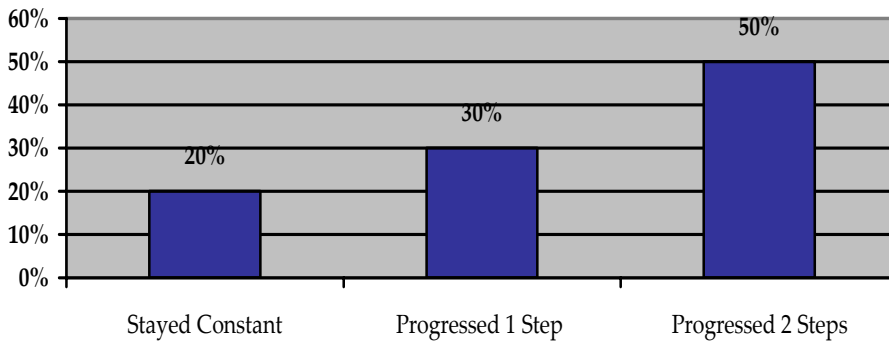
80% of the children progressed one or more steps gain in cognitive development.

children. Programs reported the number of children with observation data for both fall and spring. For this evaluation, gain scores were reported for language and math. The majority of the children made at least a one-step gain in both areas. More progress was made in cognitive development with 50% of the children making a two-step gain. Data were not available to analyze by ethnicity or gender.

Summary of CCDC Gains Related to Language Development



Summary of CCDC Gains Related to Cognitive Development



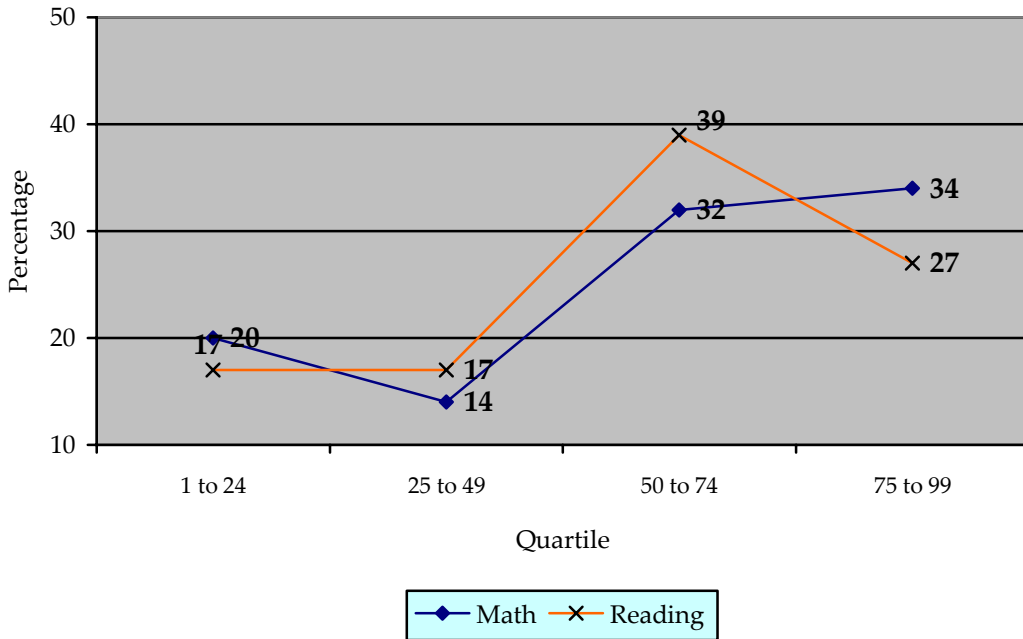
Long-Term Educational Outcomes

The ECE Grant Program is designed to assist schools and educational service units in providing high quality programs that lead to positive long-term outcomes for young children, including continuing success in school. Long-term outcomes were tracked for children in programs that have been in operation sufficient years for follow-up of those children who have remained in the same school district. Based on the targeted population, which would be characterized as “at-risk”, the goal is to have the children achieve at academic levels comparable to or higher than their classroom peers. Therefore, those at or above the 50th percentile or those meeting or exceeding district objectives would be considered equal to or above their peers. One of the challenges of collecting data for long term outcomes is the mobility of families. This results in attrition of numbers of children remaining in the school district over time and the amount of children’s data available for this report.

Standardized Achievement Outcomes. The long-term impact of an ECE Grant Program experience was evaluated by collecting mathematics and reading achievement scores for a sample of children who attended Nebraska’s ECE grant programs. The assessments included the Stanford Achievement Test, Terra Nova, California Achievement Test, and Measures of Academic Progress (NWEA MAPS). Results for third or fourth, eighth, and eleventh grade students were aggregated from five programs and included a total of 118 students. Of the 118 children included in this sample, 19% were identified as special education students.

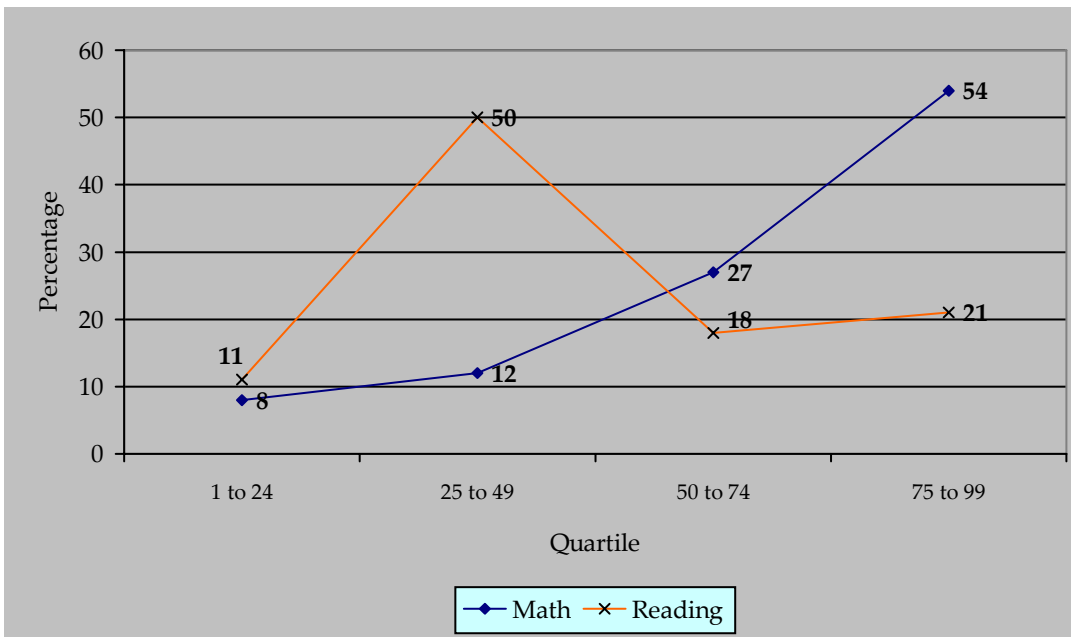
Most ECE grant children were in the 50th percentile or greater group (66% reading and 66% math) on achievement tests in 3rd or 4th grade.

Reading and Math Achievement Scores for ECE Grant Children – 3rd and 4th Grades



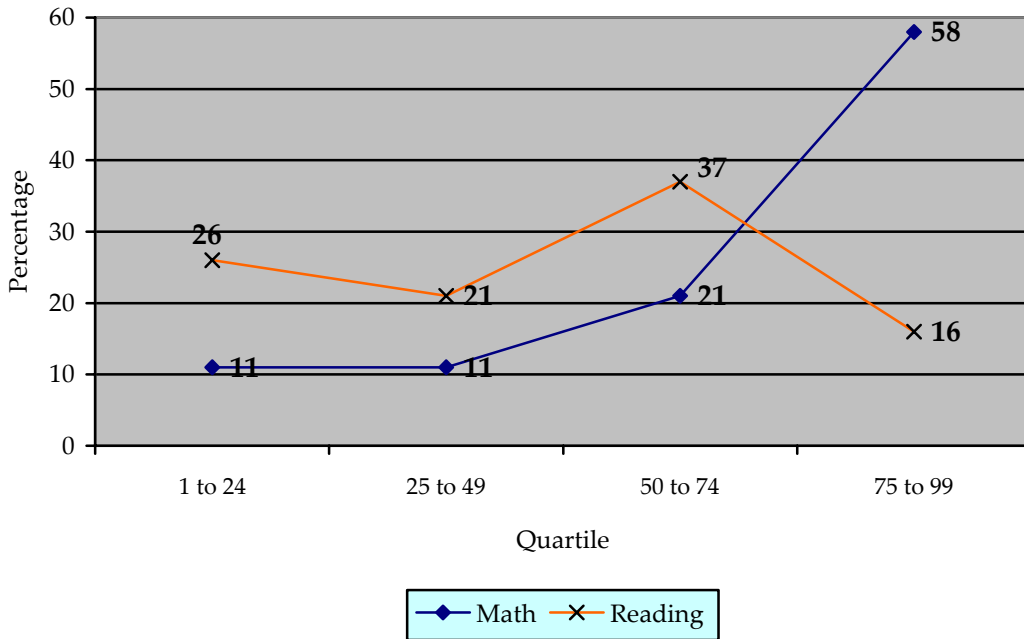
The 3rd and 4th grade sample included assessment data for 71 students. Most of the children were in the 50th percentile or greater group (66% reading and 66% math).

Reading and Math Achievement Scores for ECE Grant Children – 8th Grade



The 8th grade sample included assessment data for 28 students. Most (81%) of the children were in the 50th percentile or greater group in math. Fewer 8th graders (39%) were in the 50th percentile or greater group in reading.

Reading and Math Achievement Scores for ECE Grant Children – 11th Grade

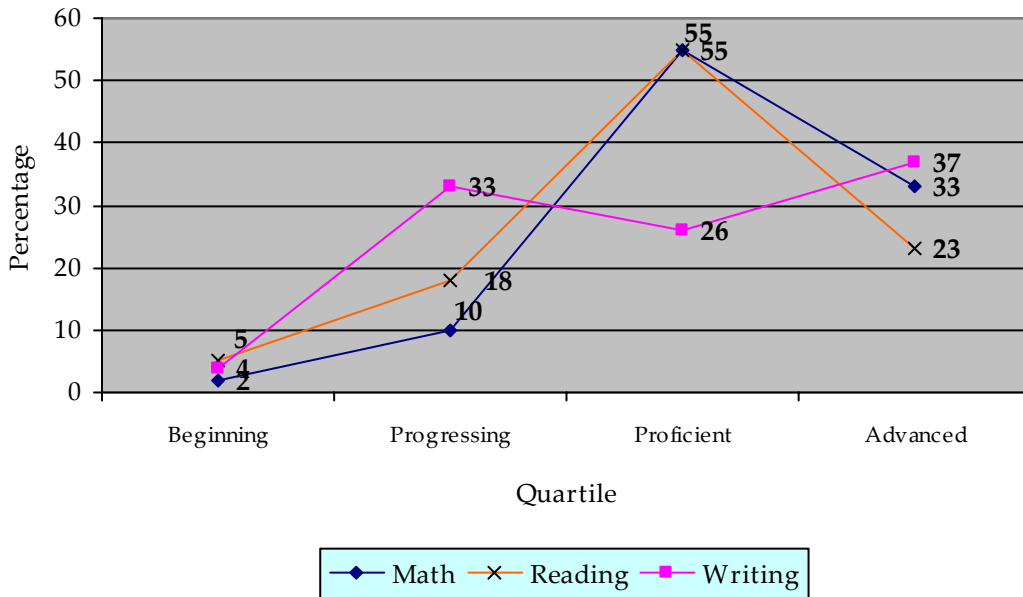


The 11th grade sample included assessment data for 19 students. Most (79%) of the children were in the 50th percentile or greater group in math. Fewer 11th graders (53%) were in the 50th percentile or greater group in reading.

Nebraska Student-Based, Teacher-Led Assessment and Reporting System (STARS) Outcomes. Three programs provided STARS outcome data for children who had an ECE Grant Program experience. There was an equal split among elementary and secondary students for the STARS scores, with 40 in 4th grade, 21 in 8th grade and 20 in 11th grade. Twenty-two percent (22%) of the students were identified as receiving special education services.

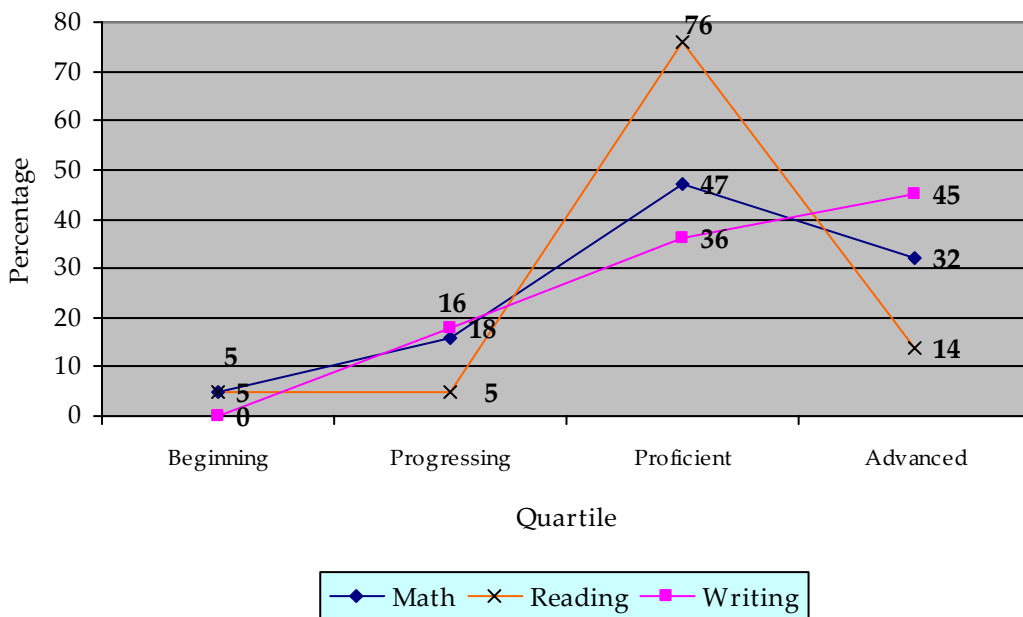
The majority of ECE grant children across grade levels met or exceeded district standards in reading, writing, and math.

STARS Math, Reading & Writing Aggregate Scores for 4th Grade Students with ECE Grant Experiences



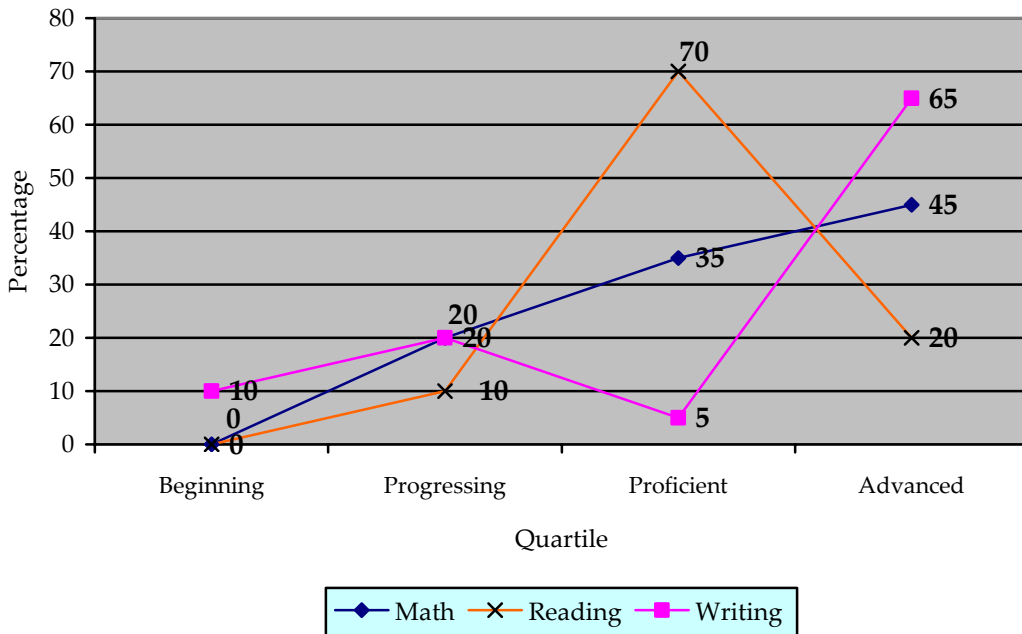
Data were reported for 40 fourth grade students. The results indicated that the majority of the children were scoring at least “proficient” in the areas of math (88%), writing (63%), and reading (78%). Writing scores were considerably lower than reading or math scores.

STARS Math, Reading & Writing Aggregate Scores for 8th Grade Students with ECE Grant Experiences



Data were reported for 21 eighth grade students. The results indicated that the majority of the children were scoring at least “proficient” in the areas of math (79%), writing (81%), and reading (90%). More children were proficient in reading than math or writing. This trend was opposite the trend reported from the standardized assessments, which found that more children had higher math scores.

STARS Math, Reading & Writing Aggregate Scores for 11th Grade Students with ECE Grant Experiences



Data were reported for 20 eleventh grade students. The results indicated that the majority of the children were scoring at least “proficient” in the areas of math (80%), writing (70%), and reading (90%). More children were proficient in reading than math or writing. This trend was opposite the trend reported from the standardized assessments, which found that more children had higher math scores.

Summary of Objective 2: Impact of ECE Grant Programs on School Success

The majority of young children served made substantial developmental gains during the school year. There were not significant differences in post total scores when comparisons were made across gender or ethnicity, suggesting that the participation in programs was equally successful for all groups of children. The majority of the school-age children who had an ECE Grant Program experience were performing well in later school years on standardized measures and on Nebraska STARS outcomes. The majority of the children demonstrated academic skills that were in the 50th percentile or higher or proficient or higher.

Summary of Evaluation Findings

National studies report that quality early childhood education programs are linked to immediate, positive developmental outcomes, as well as long-term positive academic performance. Quality early childhood education environments are being provided through the Nebraska Early Childhood Education Grant Program. This is reflected in good to excellent average ratings across programs on environment rating scales, classroom observations indicating a trend toward exemplary language and literacy practices, and more programs moving toward national accreditation of their programs.

In 2005-2006, the Nebraska Early Childhood Education Grant Program served a total of 1,483 young children and their families in 38 funded districts or ESU programs. This reflected an increase of approximately 400 children enrolled in 11 newly funded programs from the previous year. The majority of the children were four-year-olds from families that were eligible for free and/or reduced lunch.

Clearly, the results of this evaluation indicate that Nebraska's investment in early childhood education grant programs yields positive outcomes for the young children served. Immediate short-term outcomes are realized as reflected in documented substantial developmental gains over the course of the year. Similar post developmental scores across gender and ethnicity suggest that the intervention is equally successful for all groups of children. Longitudinal data suggest continued positive long-term outcomes as the children served in these programs experienced academic success.

Submitted by:

Barbara Jackson, Ph.D. & Lisa St. Clair, Ed.D. Candidate
Department of Education & Child Development
Munroe-Meyer Institute
University Center of Excellence for Developmental Disabilities
University of Nebraska Medical Center



References

- Brinkman, N., Barton, H., & Taylor, L. (2005). *High/Scope Child Observation Record for Preschoolers*. Ypsilanti, MI: High/Scope.
- Burchinal, M., Peisner-Feinberg, E., Bryant, D., & Clifford, R. (2000). Children's social and cognitive development and child-care quality: Testing for differential associations related to poverty, gender, or ethnicity. *Applied Development Science, 4*, 149-165.
- Dodge, D., Colker, L., & Heroman, C. (2005). *The Creative Curriculum Developmental Continuum Assessment Toolkit for Ages 3-5*. Washington, DC: Teaching Strategies, Inc.
- Harms, T., Clifford, R. & Cryer, D. (1998). *Early Childhood Environment Rating Scale, Revised Edition*. New York, NY: Teachers College Press.
- Harms, T., Cryer, D., & Clifford, R. (2004). *Infant/Toddler Environment Rating Scale, Revised Edition*. New York, NY: Teachers College Press.
- High/Scope Educational Research Foundation (2004). *High/Scope Child Observation Record for Preschoolers and for Infants/Toddlers*. Ypsilanti, MI: High/Scope.
- Ramey, C. & Ramey, S. (1998). Early intervention and early experience. *American Psychologist, 58*, 109-120.
- Smith, Dickinson, Sangeorge & Anastasopoulos (2002). *Early language and literacy classroom observation*. Newton, MA: Education Development Center, Inc.