



WICHITA STATE
UNIVERSITY

COMMUNITY ENGAGEMENT
INSTITUTE

Center for Applied Research and Evaluation

Early Childhood Block Grant 2018-2019 Report

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A Kansas Story

Early Childhood Block Grant (ECBG)



School readiness depends on the risk and protective factors a child is exposed to during the early years of life. To be school ready refers to the social, emotional, and cognitive abilities that allow children to successfully participate and learn at school ¹.

.....

A combination of 22 studies from 1960 to 2016 showed a significant connection between school readiness and decreased special education placement, grade retention, and an increase in high school graduation rates.²

.....

Exposure to these risk factors impedes healthy development and contributes to disparities in school readiness and academic outcomes. The presence of multiple risk factors compounds the detrimental effects of individual risk factors³. However, protective factors,

such as responsive caregiving and high-quality early education³, can moderate the negative influence of risk.

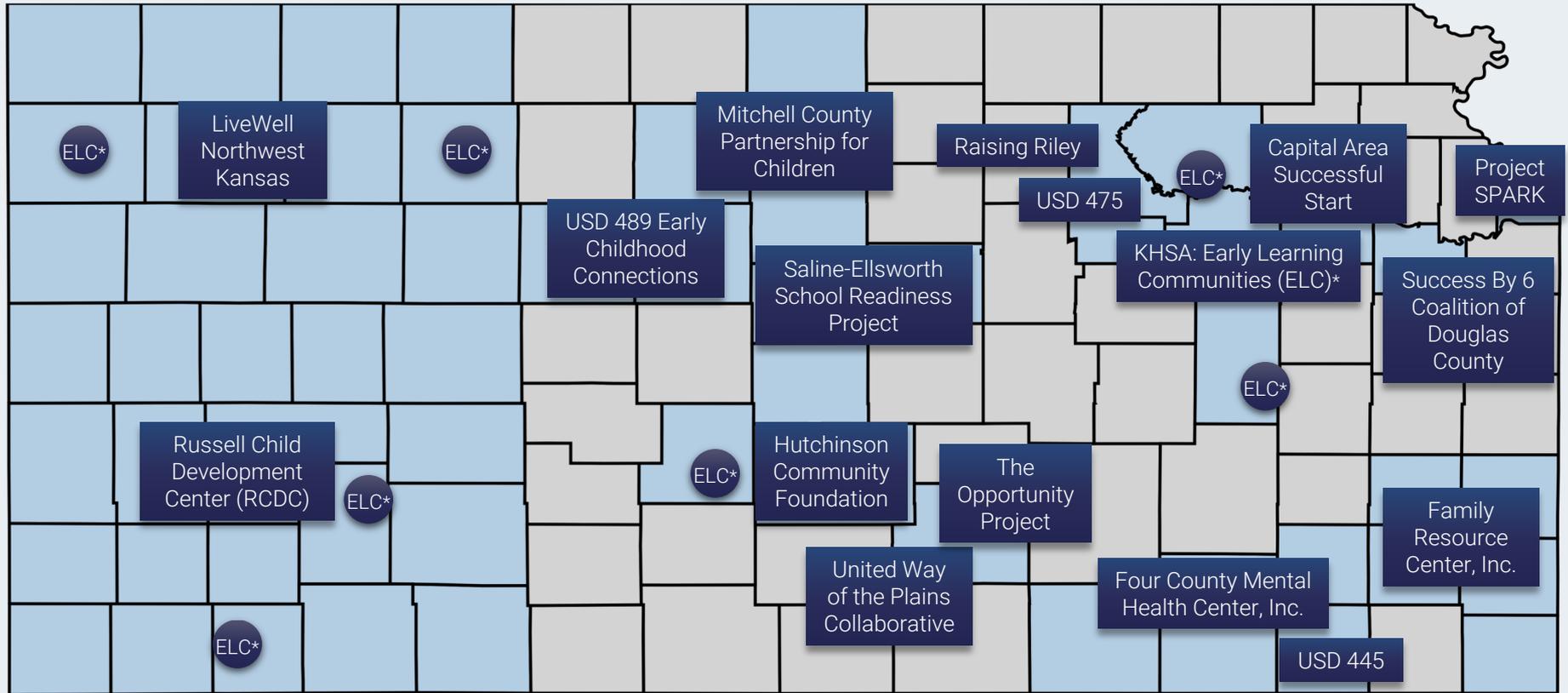
In order to prevent further disparities in school readiness, the Kansas Children's Cabinet and Trust Fund (KCCTF) provides Early Childhood Block Grant (ECBG) funding to qualified applicants throughout Kansas. Grantees must demonstrate community needs and utilize funds for locally identified, high-quality programs serving at-risk children and their families.

Healthy child development and positive life outcomes are supported through investment in high-quality early care and education programs targeted to at-risk children, as well as programs designed to assist their families.

Grantee Programs



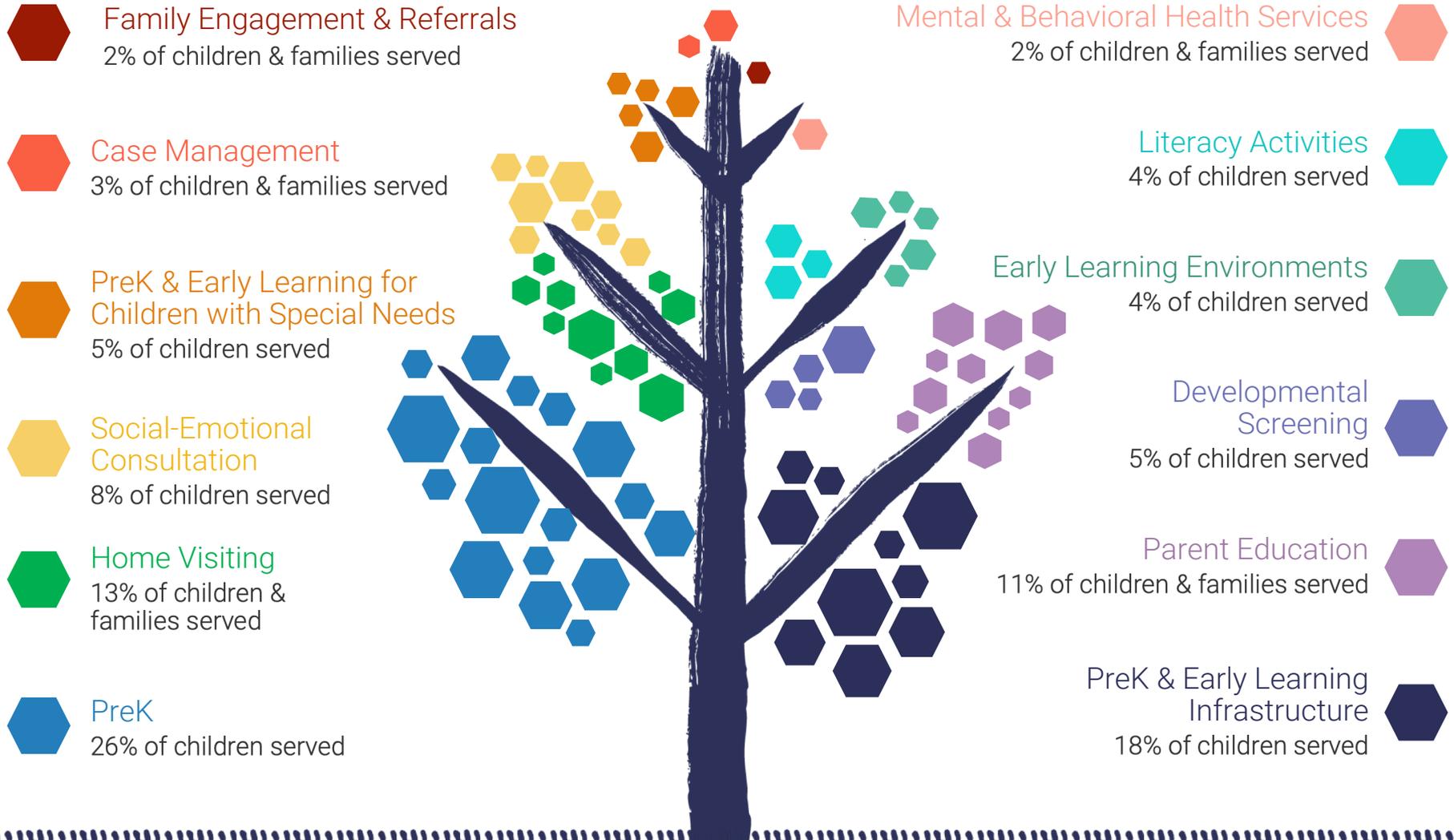
Grantees & Counties Served by ECBG



The map above displays the location of the 17 ECBG grantees and the 57 counties they serve across the state. For more information on the ECBG grantees and their specific programs go to: maps.caretools.org.

*ELC- KHSA: Early Learning Communities (ELC)

Children & Families Served by Program Type



Children & Families Served

Demographics & Risk

Grantees collected basic descriptive information and data concerning risk factors experienced by children and families served by ECBG. Risk factors specifically associated with poor school readiness were selected. Demographics and risk information provide a picture of a group of high risk children and families served by KCCTF funds.



Risk Factors

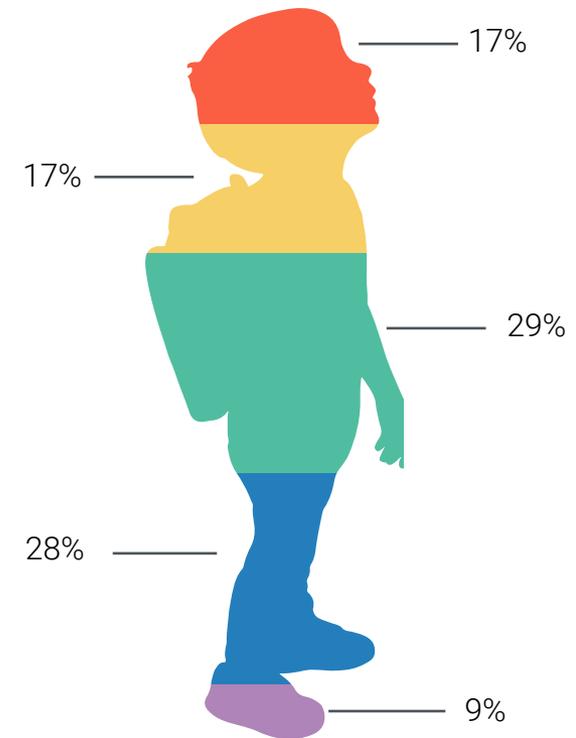
This report contains descriptive information for children and families served during the 2018-2019 grant year.

ECBG Risk Factors

- Family income (measured by free and reduced price lunch)
- Children and families whose primary language is not English
- Children at risk for developmental delay (measured by ASQ-3 and ASQ: SE-2 scores)
- Children who have an established developmental delay (measured by qualification for IEP/IFSP, Part B, or Part C)
- Children in foster care or in custody of a relative
- Caregivers with less than a high school education
- Teen parents

Overall Risk - # of Risk Factors

■ 0 ■ 1 ■ 2 ■ 3 ■ 4+

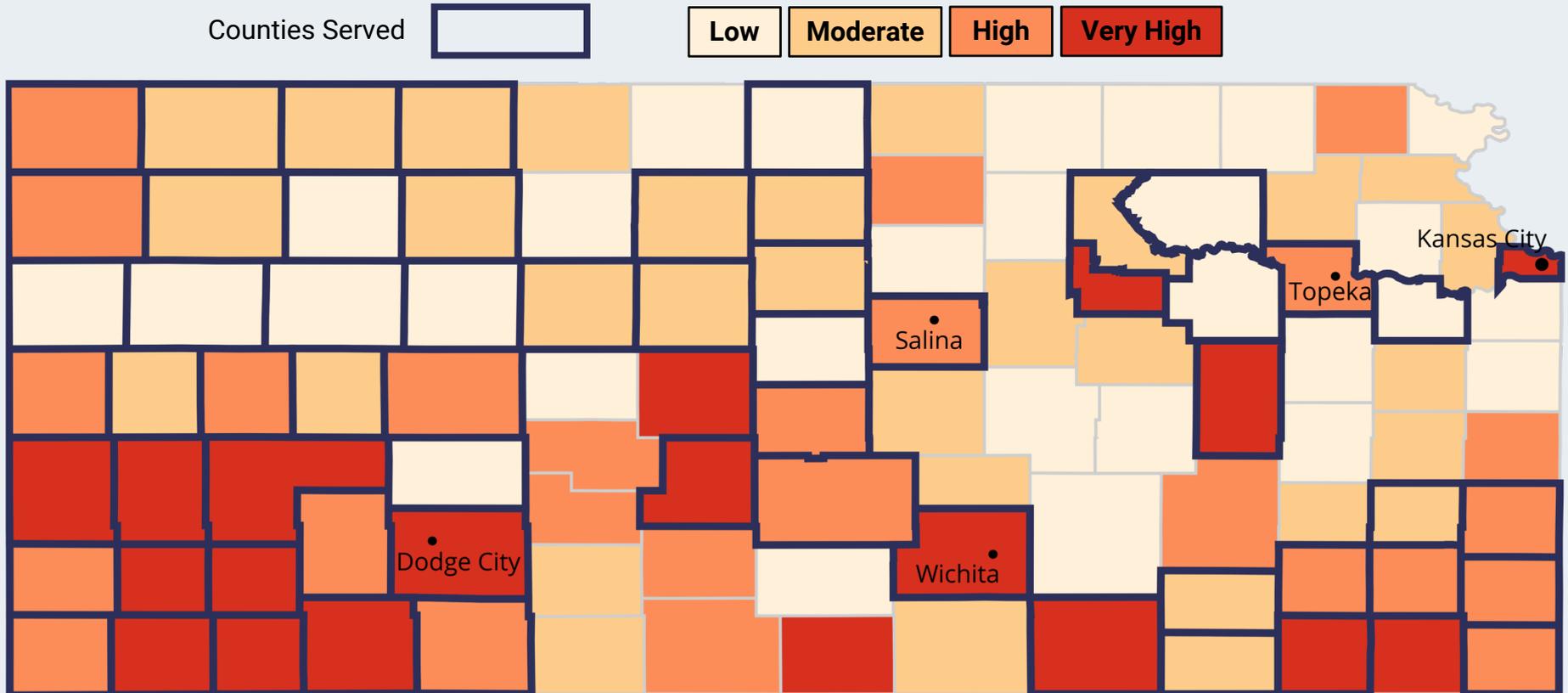


Families Served = 6,484

91%

of families with one or more risk factors

Risk in Counties Served by ECBG



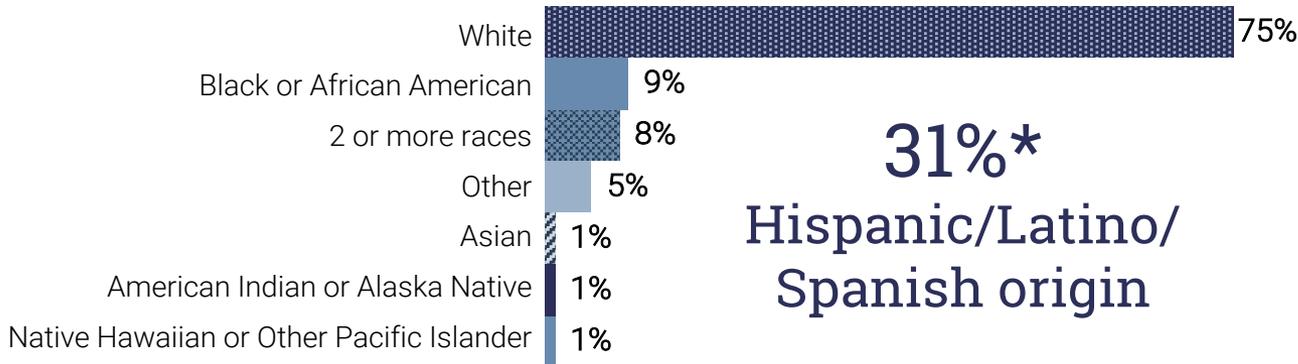
Kansas counties were categorized from low to very high risk based on a summary of Kansas data associated with poor school readiness. The counties served by ECBG (outlined in dark blue) had a range of risk levels based on data for the following risk factors:

- Percent of children participating in the free and reduced price lunch program (Kansas KIDS Count)
- Percent of mothers with less than a high school diploma (Kansas KIDS Count)
- Percent of households where no one age five or over speaks English (census.gov)
- Teen pregnancy rates (KDHE)
- For more information on risk in Kansas go to: schoolready.caretools.org



7,457 Children Served this Year

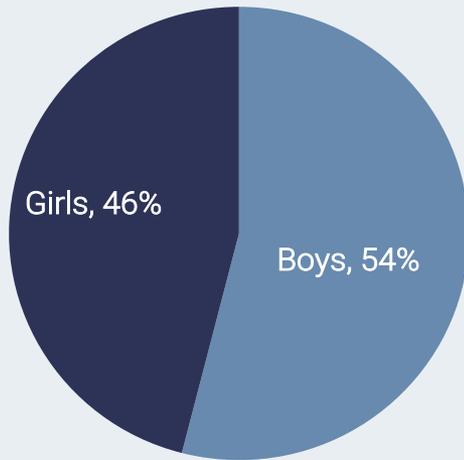
Child Race



31%*
Hispanic/Latino/
Spanish origin

*Ethnicity is measured separately from race in a way consistent with the U.S. Census

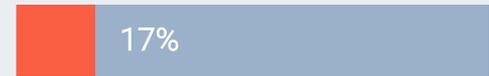
Child Gender



Risk Factors



Foster care or in custody of a relative



Part B or Part C Early Intervention Services



Child did not speak English as their first language



6,484 Families
Served this Year



56% Married



Risk Factors



77% Free & reduced price lunch



9% Teen parents



15% Parents with less than a high school education



22% Caregivers did not speak English as their first language



Caregiver Education

Bachelor's Degree or Higher

20%

Technical Training/ Associate Degree/ Some College

35%

High School Diploma or GED

30%

Less than High School

15%

Family Income





Developmental & Social-Emotional Risk

Due to the rapid changes taking place in child development from birth to age 5, frequent screening is essential for early identification of developmental delays. The American Academy of Pediatrics recommends regular developmental screening in early childhood⁴.

The ASQ-3 and ASQ:SE-2 classifies children as:

- At-Risk – additional assessment is needed
- Monitoring – frequent developmental screening is recommended
- On Track – development is consistent with norms for the child's age

Early identification and intervention for developmental and social-emotional delays have been associated with achievement of future developmental milestones and promotion of school readiness^{5,6}.



Blueprint Area:

Healthy Development

Goal:

Early identification of developmental & social-emotional delays

Measures:

Ages & Stages Questionnaire – 3rd Edition (ASQ-3) & ASQ: Social-Emotional, 2nd Edition (ASQ:SE-2)

Scales:

ASQ-3: Communication, Gross Motor, Fine Motor, Problem Solving, & Personal-Social;
ASQ:SE-2: Self-Regulation, Compliance, Social Communication, Adaptive Functioning, Autonomy, Affect, & Interaction with People

Ages:

1 month-6 years

Frequency:

Based upon age of the child

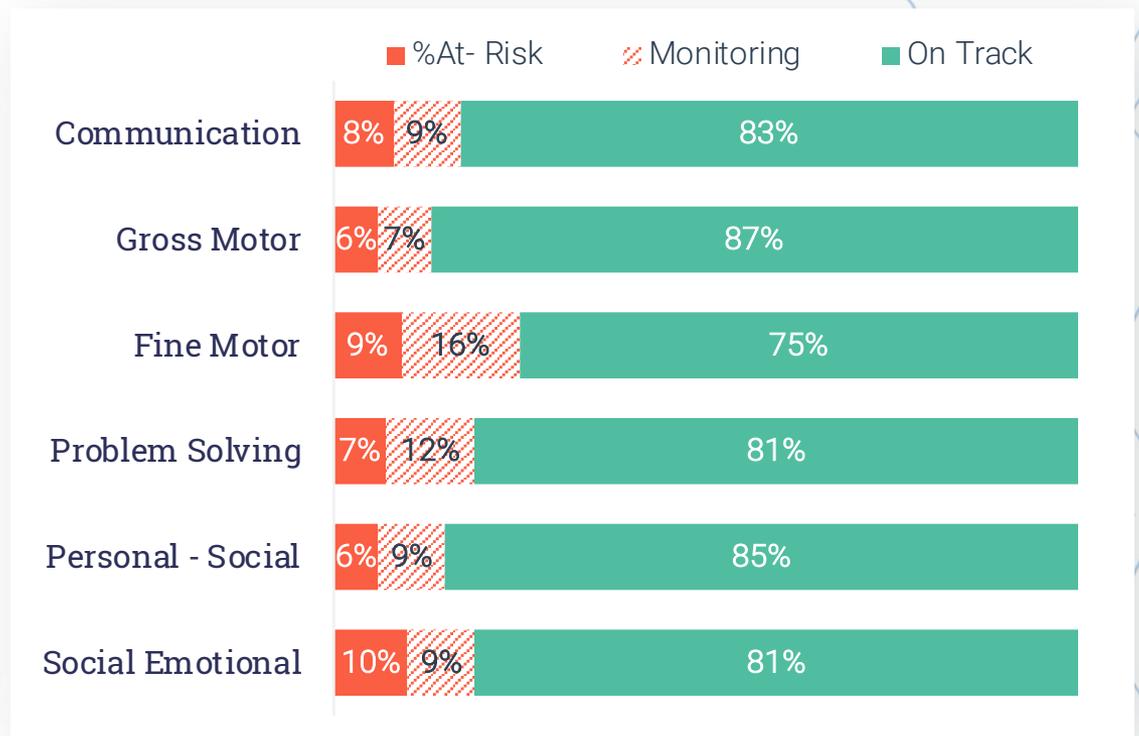
Purpose:

Identify delays, promoting additional assessment & referral for intervention when delays are present

Impact of Early Developmental Screening

Participation in ECBG programs promoted early identification, which is the first step in early intervention.

3,130
children
identified At-Risk
in one or more
areas



Impact on Child Outcomes

ECBG programs participate in a rigorous approach to determining outcomes. Measures of short term outcomes associated with school readiness were used as indicators.

The measures focus on gathering consistent data across a wide range of programs to allow for a statewide snapshot of outcomes associated with early childhood programs. In addition, measures provide grantees with ongoing information related to program outcomes to use for continuous quality improvement.



Social- Emotional Impact





Social-Emotional Development

The Devereux Early Childhood Assessment (DECA) is a reliable and valid measure of social-emotional well-being. Measures of social-emotional skills promote mental health in young children by identifying areas of developmental need^{7,8}.

Development of age-appropriate social and emotional skills is related to the ability to build relationships, solve problems, and cope with challenges as well as contribute to academic success⁹.



Blueprint Area:
Healthy Development

Goal:
Social-emotional development, including positive self-regulation & compliance behaviors

Measures:
Devereux Early Childhood Assessment
DECA-I (Infant), DECA-T (Toddler), & DECA-P2 (PreK)

Scales:
Initiative, Self-control, & Attachment

Ages:
1 month-5 years

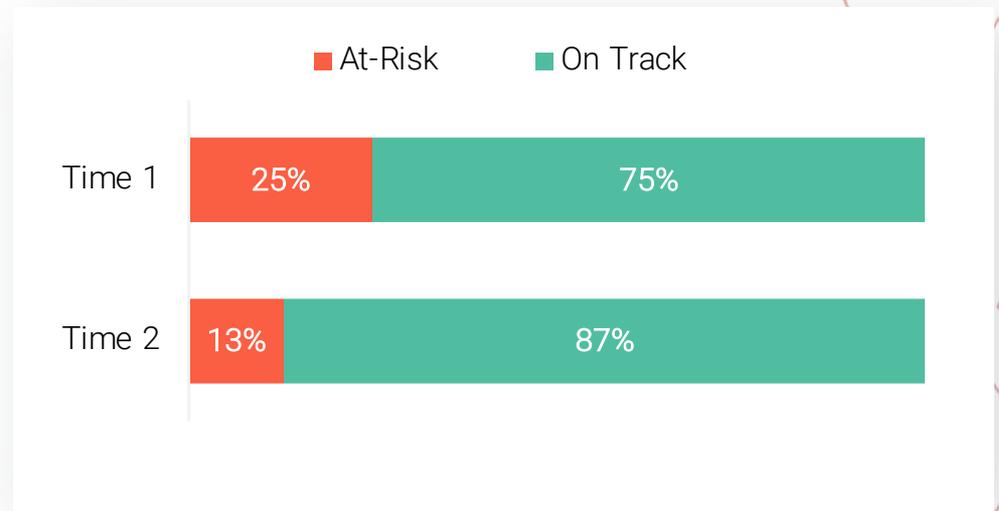
Frequency:
At the beginning & end of services; or twice during the evaluation year

Purpose:
Assessment for social-emotional development that measures protective factors in children receiving targeted one-on-one social-emotional, mental, and/or behavioral services

Impact on Social-Emotional Development

There was a decrease in the percentage of children at-risk in social-emotional development following ECBG services. Timing and duration of services vary by grantee. Children were assessed at the beginning (Time 1) and end (Time 2) of services.

752
children
served



The development of social-emotional skills is particularly important for children who are at higher risk, and thus, more likely to fall behind in school readiness¹⁰.

Early Learning & PreK Environments Impacts





Early Learning & PreK Environments

What are Early Learning & PreK Environments?

Early Learning Environments:

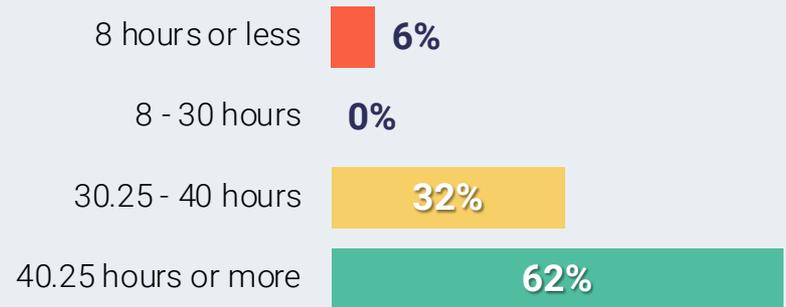
These environments include classrooms, child care centers, or home care providers whom provide care and education for children birth-3 years old.

A national review of the effects of public PreK programs found the impacts through fourth grade were much stronger for programs in school districts with more disadvantaged students and for high quality programs¹¹.

PreK Environments:

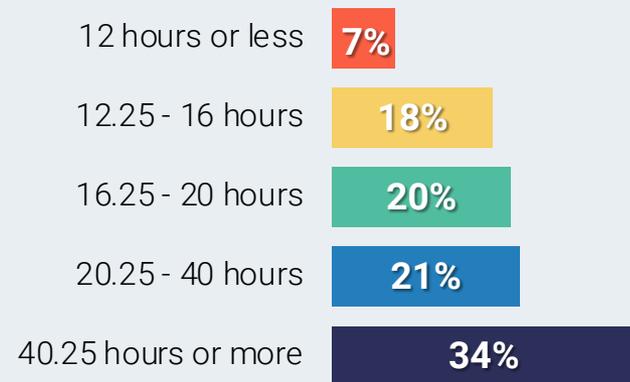
PreK environments provide care and education to children 3 to 5 years old. These settings are primarily classroom-based and include a specified developmentally appropriate evidence-based or research-based curriculum.

Percentage of Children by Hours per Week Spent in **Early Learning Environments**



63% of children spent more than 20 hours per week in Early Learning/PreK Environments

Percentage of Children by Hours per Week Spent in **PreK Environments**



Early Learning & PreK Environments

Classroom observations provide an objective, broad based perspective of care and education settings while determining the use of developmentally appropriate practices. Research suggests children benefit most from classrooms that reach an established level of emotional and behavioral support, organization, learning, and instructional promotion¹².

Children who experience high levels of language modeling, quality feedback, and concept development in PreK make greater gains on language development and academic achievement^{13,14}.



Blueprint Area:

Early Learning & Healthy Development

Goal:

High quality care & support that promotes all areas of child development

Measures:

Classroom Assessment Scoring System (CLASS) - CLASS-T & CLASS-PreK

Scales:

CLASS-T: Emotional & Behavioral Support & Engaged Support for Learning;
CLASS-PreK: Emotional Support, Classroom Organization, & Instructional Support

Ages:

15 months-5 years

Frequency:

Fall & Spring (dependent on Fall results)

Purpose:

Assess quality of teacher-child interactions in early learning environments

High Quality Classrooms

High quality CLASS teacher-child interactions were most predictive of positive change in academic outcomes and social skills when compared to group size, family partnership, staff education and training, or alternate classroom environment ratings¹⁵.

Serve and return interactions are exchanges between a child and an adult which consist of adults providing appropriate response, comfort, and assistance based on the child's bids for attention. The Harvard Center on the Developing Child (2012) found that serve and return interactions build and strengthen a child's brain development, supporting overall physical, mental, and emotional development¹⁶. Furthermore, these interactions must be applied in early learning environments as well as parental interactions. The CLASS tool captures the level of serve and return interactions present in the classroom by focusing on observed teacher-child interactions occurring within early learning environments.

3,007

children in high quality ECBG care & education

74%

high quality classrooms



Early Learning Impacts





Early Communication

The IGDI of Early Communication Indicator (ECI) is a play-based child measure, which monitors development in expressive communication. Based on data establishing developmental norms by age in months children were categorized as:

- At-Risk – Communication skills below what is within the normal range
- Developing – Communication skills are close to the normal range and frequent monitoring is suggested
- On Track – Communication skills are at or above the normed cut off for the child's age

The Making Online Decisions (MOD) intervention, which has been found to significantly improve communication, is available to all ECBG programs using the ECI. The intervention provides parent and child care providers with strategies based upon the current communication skills for any child not meeting developmental milestones¹⁷.

The KCCTF has sponsored training on the use of the MOD and emergent literacy for classroom coaches. Additional training for an evidence-based intervention is being offered regionally during the summer and fall of 2019.



Blueprint Area:
Early Learning

Goal:
Age appropriate skills in communication & pre-literacy

Measure:
Individual Growth & Development Indicators (IGDIs)

Scales:
Early Communication Indicators (IGDIs-ECI)

Ages:
0-3 years

Frequency:
Three times per year

Purpose:
Measures a child's development of essential communication skills outcomes

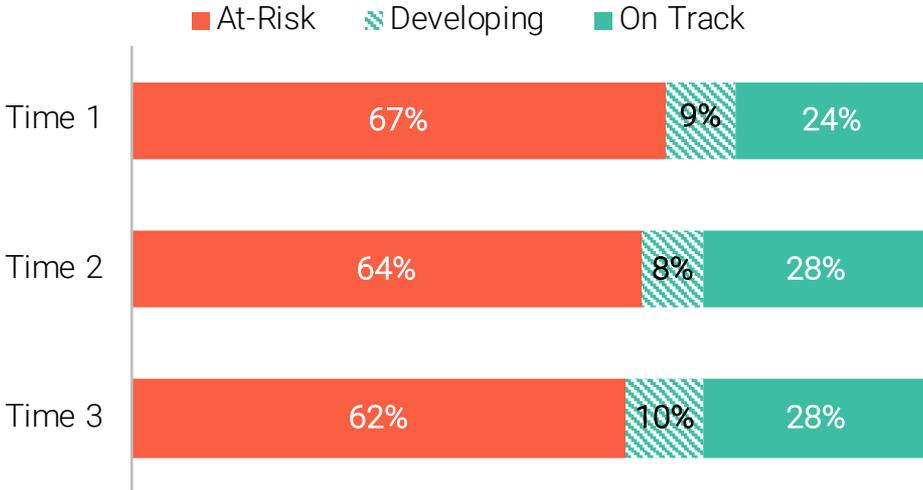
Impact on Early Communication

Children served by Part C - Early Intervention for children with developmental delays and in 0-3 year old early learning environments were screened for communication skills. Children in these programs were some of the most at-risk children in all ECBG programs with high rates for the following risk factors:

- 21% had three or more risk factors
- 68% qualified for the free or reduced price lunch program
- 52% had an established developmental delay

The majority of children remained at-risk by the end of the year; however, the 4% increase in children who are on track is notable since more than half of the children were in early intervention services for developmental delays.

Early Communication Skills



Early language ability has been found to be the best predictor of future school readiness and academic success for children in this age group¹⁸.



3-Year-Old Emergent Literacy

Strong phonemic awareness predicts development of reading proficiency in third grade¹⁹. Phonemic awareness has also been shown to be linked to increased spelling ability, which is connected to reading acquisition^{20,21,22}. Results from two studies that combined research from more than 80 different studies found preschool programs which include phonemic awareness skills had significant positive impacts on language, spelling, and literacy skills. The outcomes in this research applied to a wide range of children, from normally developing readers to struggling readers, and children from low to mid/high income families^{23,24}.

Based upon strong evidence of the need for literacy curriculum in PreK²⁵, the myIGDIs provide essential information on emergent literacy development in ECBG PreK programs.



Blueprint Area:

Early Learning

Goal:

Age appropriate skills in communication, literacy, & pre-reading

Measures:

myIndividual Growth & Development Indicators (myIGDIs P3)

Scales:

Oral Language, Letter Knowledge, & Phonological Awareness

Ages:

3-4 years

Frequency:

Fall, Winter, & Spring

Purpose:

Monitor development of literacy skills in 3-year-old children

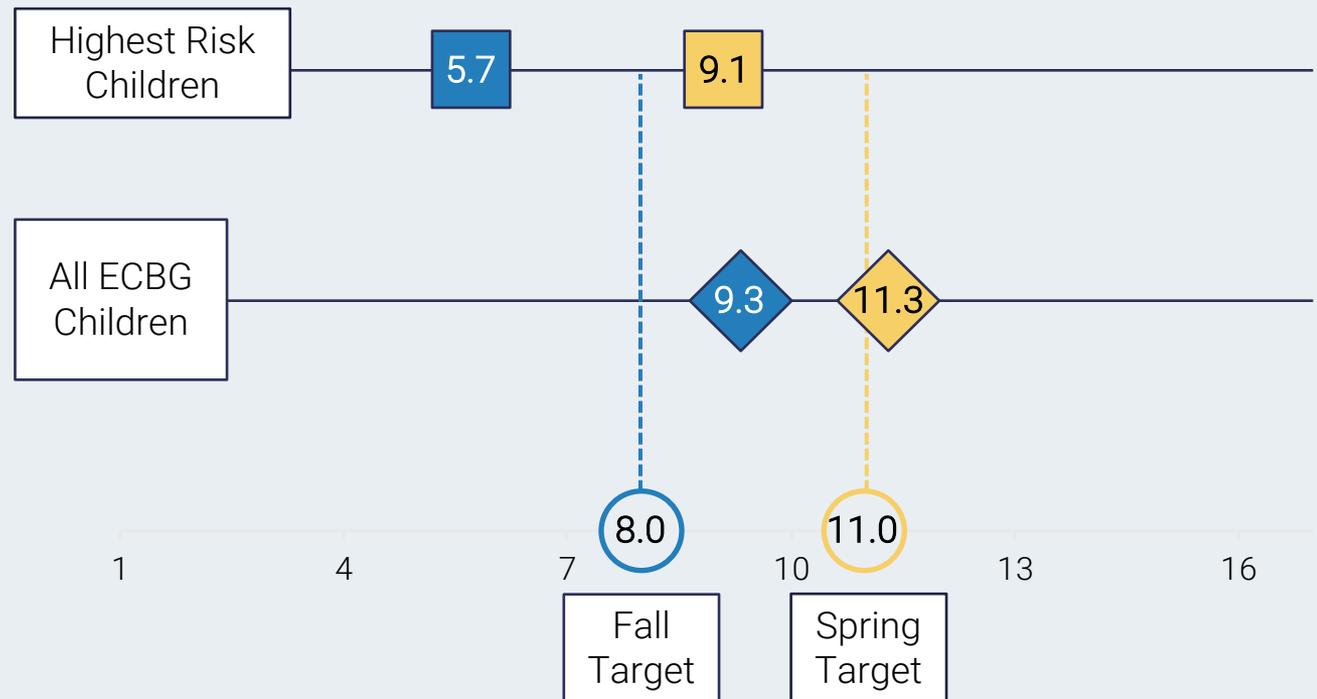
Impact on Emergent Literacy

This test measures emergent literacy, which involves the skills, knowledge, and attitudes that are demonstrated developmental precursors to conventional forms of reading and writing²⁶.

In the next few pages, outcomes from early literacy, numeracy, and family services will be presented. The lines below represent the continuum of test scores with the fall scores in blue and the spring scores in yellow. The average score is shown by the shapes (■ ◆). The circles at the bottom (○) indicate the target score for fall and spring. Two groups are represented: All children served by ECBG PreK, and the Highest Risk children. The highest risk children had three or more risk factors.

Increases in Emergent Literacy from Fall to Spring

The average 3-year-old made progress on early literacy. The largest improvements were made by the highest risk children, although they remained below the desired spring target score.



The shapes (■ ◆) indicate average scores.



4-Year-Old Literacy

The United Kingdom, Australia, and Scotland have conducted research on the implementation of systematic phonemic instruction. Based upon the research in Scotland, the UK now mandates state-funded schools provide systematic phonics instruction starting when children enter school at age 4. This change has resulted in consistent and continuing improvements in reading comprehension²⁷. A study conducted before the new policy was fully implemented found that children in schools where systematic phonics were taught showed significantly higher reading scores than those in schools that did not²⁸. Furthermore, the study found longer-term benefits for children who were English language learners, or who were economically disadvantaged. A study in Australia also found phonics to be critical to reading for all children²⁹.

Additional support for a focus on pre-literacy was found in a Head Start study³⁰, where children randomly assigned to early literacy/phonemic curriculums had significantly better third grade reading scores.



Blueprint Area:

Early Learning

Goal:

Age appropriate skills in communication, literacy, & pre-reading

Measures:

myIndividual Growth & Development Indicators (myIGDIs) Literacy

Scales:

Oral Language, Letter Knowledge, Comprehension, & Phonological Awareness

Ages:

4-5 years

Frequency:

Fall, Winter & Spring

Purpose:

Monitor development of Literacy skills in preschool-aged children

Impact on Language Comprehension

These tests measure vocabulary and understanding of language.

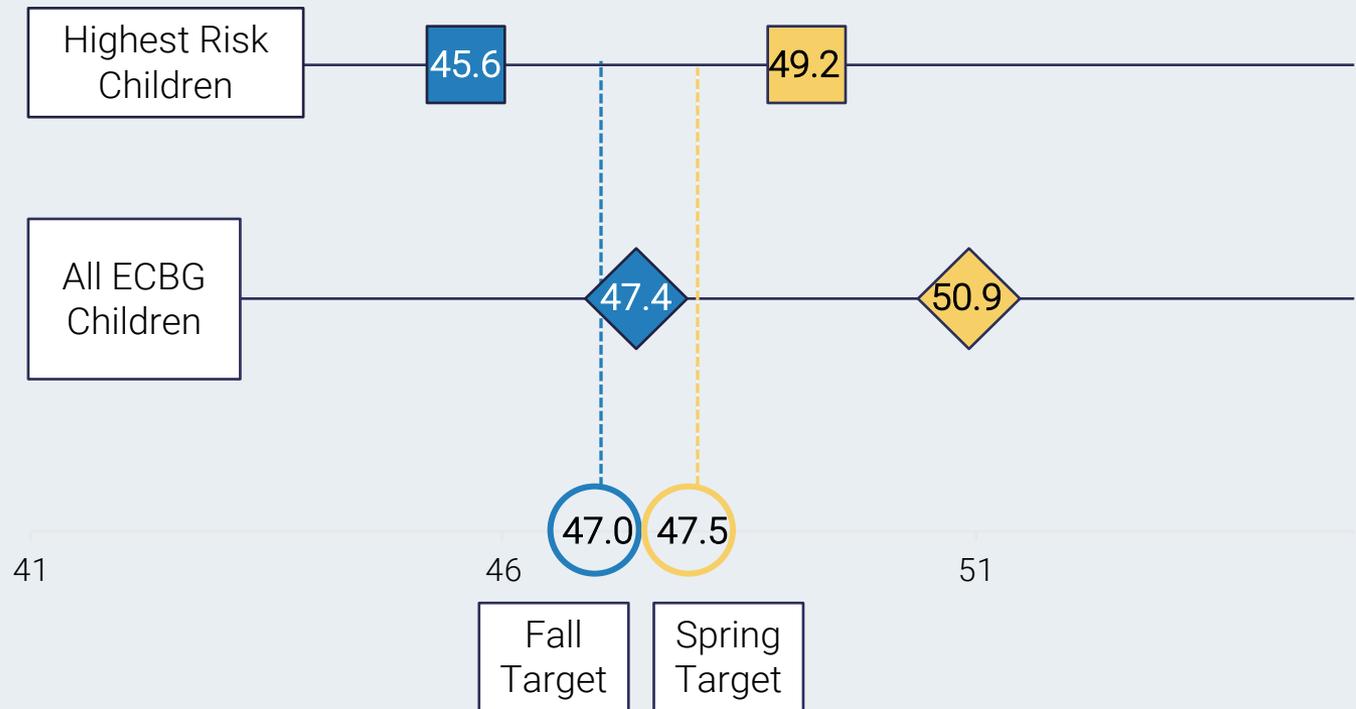
Language comprehension was measured by oral language (expressive vocabulary) and comprehension. The ability to derive meaning and draw inferences from written and spoken language are skills which are central to a reader's ability to understand text.

Oral language has been found to predict literacy and reading outcomes³¹.

This association has been found to hold true for dual language learners as well³².

Increases in Language Comprehension from **Fall** to **Spring**

Gains made by the highest risk students moved their average score from below to above the target score by spring.



The shapes (■ ◆) indicate average scores.

Impact on Phonemic Awareness

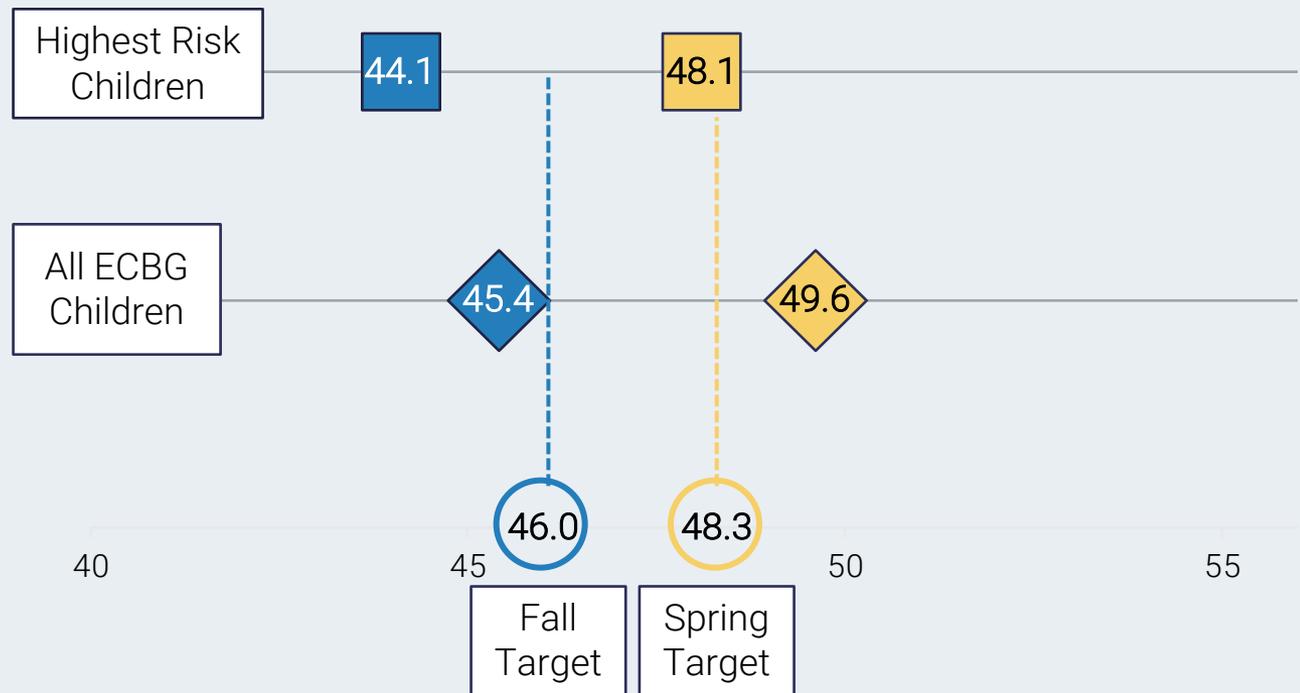
These tests measure the understanding of sounds and their connection to letters.

Phonological awareness is the ability to detect, identify, and manipulate individual sounds in spoken language. Measures of phonemic awareness include Rhyming, Alliteration, and Sound Identification. Rhyming and Alliteration are considered measures of phonemic awareness. Sound Identification requires knowledge of phonemes and the connection of that knowledge to visual letter representations.

Research on the science of learning to read indicates that emergent phonological skills are key to learning to read. Furthermore, Phonemic Awareness is consistently found to be a key skill in the science of the development of literacy²¹.

Increases in Phonemic Awareness from Fall to Spring

The average score for both groups of students progressed from below the target score to meeting or exceeding the spring target score.

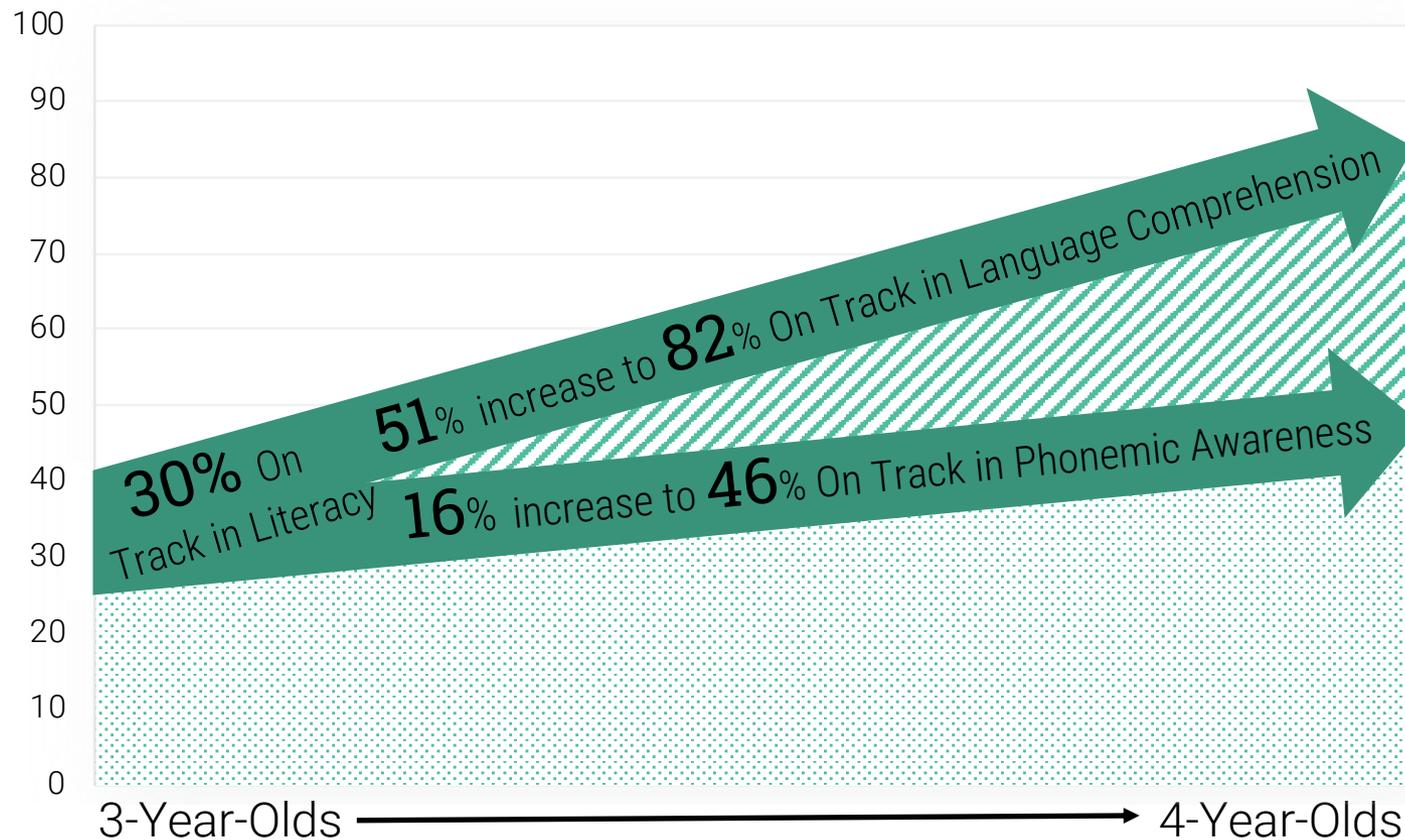


The shapes (■ ◆) indicate average scores.

Impact of 2 Years of PreK on Literacy

The majority of ECBG children do not receive two years of PreK. This year, 2,463 children participated in 4-year-old ECBG PreK. Of those children, 334 (13.6%) had also been in 3-year-old ECBG PreK and thus had 2 years. Elements of both Language Comprehension and Phonemic Awareness were combined in the 3-year-old literacy measure; the distinction between Language Comprehension and Phonemic Awareness began in the 4-year-old literacy measure.

For the children who attended two years of PreK, there were sizable increases in the percentage who were on track in pivotal emergent literacy skills (effect size for the model= .55, $p < 0.00001$).





3- & 4-Year-Old Numeracy

Research from multiple longitudinal studies demonstrated that mathematical skills during PreK are strongly associated with academic success in later years¹. Research also indicates pre-numeracy skills at Kindergarten entry were a better predictor of academic achievement than literacy, attentional skills, or social behavior³³.



Blueprint Area:
Early Learning

Goal:
Age appropriate number skills and early math

Measures:
myIndividual Growth & Development Indicators (myIGDIs) Numeracy

Scales:
Oral Counting, Quantity Comparison, Number Naming, & 1-to-1 Correspondence Counting

Ages:
3-5 years

Frequency:
Fall, Winter, & Spring

Purpose:
Monitor development of Numeracy skills in preschool-aged children

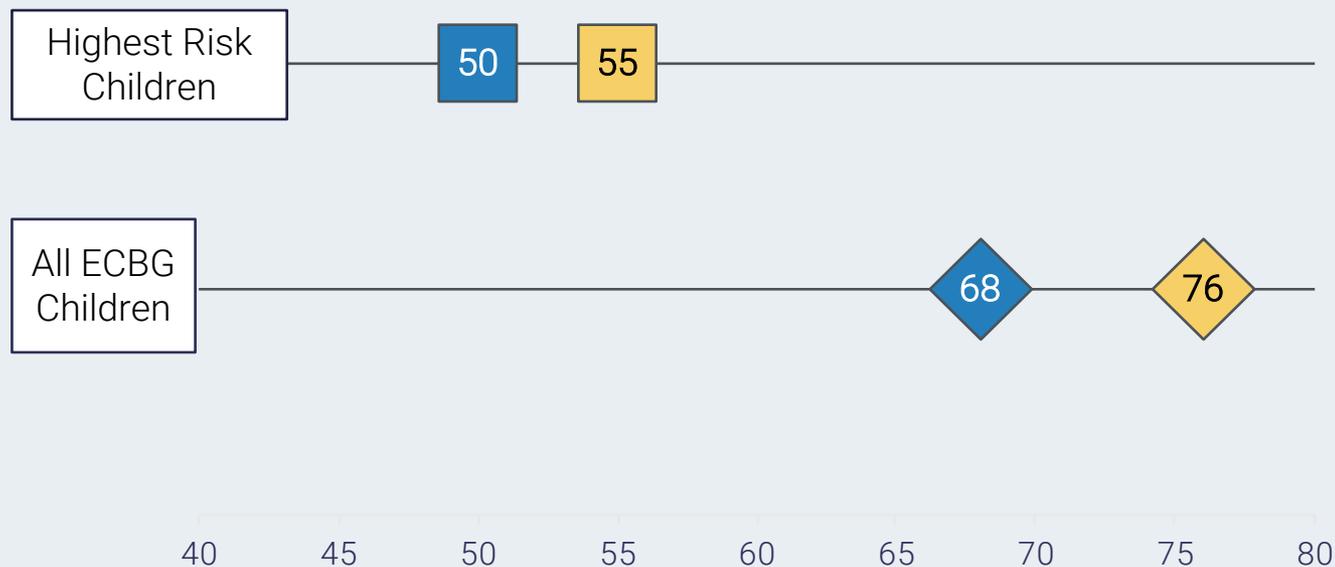
Impact on 3-Year-Old Numeracy

These tests measure early numeracy skills. Numeracy in PreK has been linked to future reading and academic skills in primary school^{1,34}.

Numeracy measures the ability to produce numbers in sequence, to make judgments about differences in the quantity of objects in groups, to name numbers fluently, and the ability to understand the correspondence of numbers to symbols to represent a quantity.

Increases in Percentage of Children On Track in Numeracy from **Fall** to **Spring**

Gains made by the highest risk students were smaller than those of the average ECBG child. Target scores are determined by child's age in months, therefore a single target cannot be included. A percent on track has been used in this case.



The shapes (■ ◆) indicate percent on track.

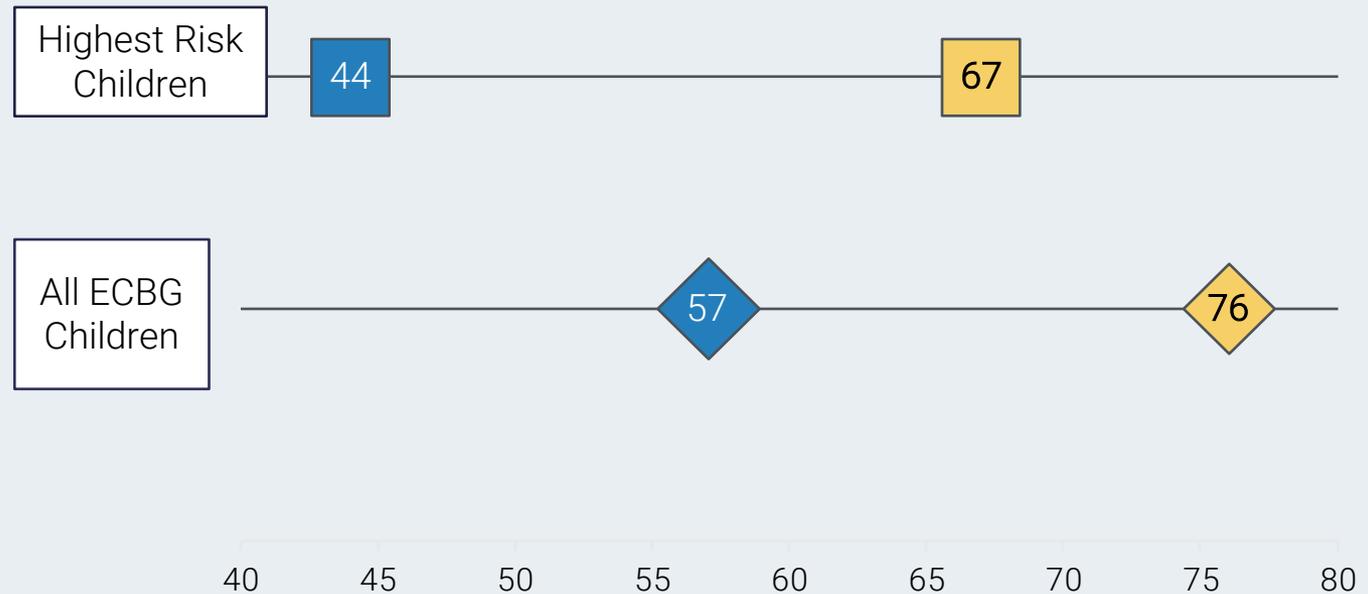
Impact on 4-Year-Old Numeracy

These tests measure early numeracy skills in 4-year-olds.

Engaging in early mathematics increases oral language abilities, even when measured during the following school year. These include vocabulary, inference, independence, and grammatical complexity³⁵.

Increases in Percentage of Children On Target in Numeracy from Fall to Spring

Gains made by the highest risk students were larger than those of the average ECBG child. Target scores are determined by child's age in months, therefore a single target cannot be included. A percent on track has been used instead.



The shapes (■◆) indicate percent on track.

Family Services Impact





Home Visiting

The HOME Inventory is an observational and caregiver interview assessment used to represent change generated through home visiting programs. Significant improvements in HOME Inventory scores were found in multiple home visiting studies, the largest of which was a meta-analysis of the impact of home visiting on parent-child relationships³⁶.

Roggman and colleagues (2016) found HOME Inventory scores measured positive parenting outcomes which were associated with positive developmental outcomes for young children³⁷.



Blueprint Area:
Strong Families

Goal:
Safe, stable, & nurturing relationships

Measures:
Home Observation Measurement of the Environment (HOME) Inventory

Scales:
Responsivity, Acceptance, Organization, Learning Materials, Involvement, & Variety

Ages:
2 months-3 years

Frequency:
At the beginning & end of services; or twice during the evaluation year

Purpose:
Measures the quality & extent of stimulation & parental interaction available to a child in the home environment

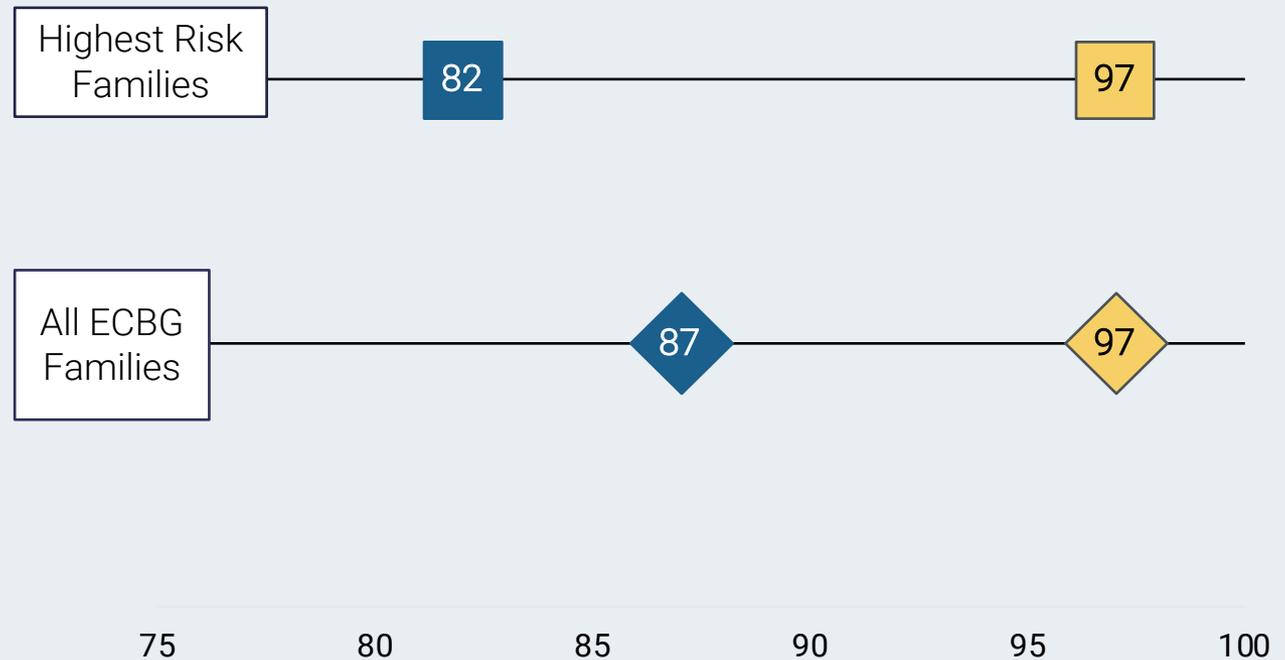
Impact on Early Childhood Home Environment

These observations measure the quality of the home environment and the interactions between the adults and their children.

Observations of the early childhood home environment have been found to predict positive developmental outcomes of young children associated with positive parenting outcomes³⁸.

Improvement in Home Environment from Time 1 to Time 2

The chart depicts the percentage of families who met the benchmark for home environments that promote healthy development and school readiness. Gains made by the highest risk families were larger than those of the average ECBG family.



The shapes (◆■) indicate percent at or above the benchmark.



Parent Education

The KIPS gauges parenting quality by assessing caregiver behaviors, many of which involve serve and return interactions. For example, Sensitivity of Responses assesses caregiver awareness and response to a child's cues. Similarly, Supports Emotions focuses on how a caregiver notices and responds to a child's emotions; interactions characterized by emotional responsiveness promote healthy emotion regulation. Caregiver synchrony of body position or touch to match the child's cues is assessed by Physical Touch. The KIPS provides a systematic observation of the serve and return of parent-child interactions, the common element being responsive parenting guided by the child's instinctive attempts for interaction³⁹.

Parent education and home visiting programs have been found to promote supportive parenting skills and positive nurturing parent-child relationships. Poor parenting (inconsistent discipline, tracking, lack of warmth) has been related to future social emotional problems^{40,41}. Evidence-based parent education programs that promote positive parenting have been found to reduce this risk⁴¹.



Blueprint Area:
Strong Families

Goal:
Safe, stable, & nurturing relationships

Measures:
Keys to Interactive Parenting Scale (KIPS)

Scales:
Sensitivity of Responses, Supports Emotions, Physical Interaction, Involvement in Child's Activities, Open to Child's Agenda, Engagement in Language Experiences, Reasonable Expectations, Adapts Strategies to Child, Limits & Consequences, Supportive Directions, Encouragement, & Promotes Exploration & Curiosity

Ages:
2 months-6 years

Frequency:
At the beginning & end of services; or twice during the evaluation year

Purpose:
Assess parenting behavior & parent-child interactions

Impact on Positive Parenting

Systematic observations of the interactions between caregivers and their children reflect positive parenting and their serve and return interactions¹⁶. These responsive and reciprocal interactions have been identified by the Harvard Center on the Developing Child as supporting overall physical, mental, and emotional development in early childhood¹⁶.

Research has demonstrated that responsive parenting measured in observations was related to children's social skills and adjustment³⁸. Moreover, this form of observation of positive parenting was found to be an effective method for discriminating between outcomes associated with parenting interventions⁴².

Improvement in Positive Parenting from Time 1 to Time 2

The chart depicts the percentage of families meeting the benchmark for positive parenting, which promotes healthy child development and social skills. The highest risk families made larger gains than those of the average ECBG family.



The shapes (◆■) indicate percent at or above the benchmark for positive parenting

Summary of Outcomes for the 2018-2019 Year

- Children served by social-emotional consultation programs increased in protective factors.
- High quality classrooms have been consistently found to result in better outcomes for at-risk children. Seventy-four percent of ECBG classrooms were observed to be high quality.
- Children 0-3 years old in ECBG Early Childhood programs and early intervention services for developmental delays made progress on early communication skills, but this should continue to be an area of focus for improvement.
- 3-year-olds struggled with emergent literacy skills, although the average child was on track by the end of the year.
- By the end of the year, 4-year-old PreK students improved in both language comprehension and phonemic awareness.
- Children served for two years in PreK had large and highly significant improvements in both areas of early literacy.
- Children in ECBG PreK programs continue to make excellent progress in early numeracy.
- Families participating in home visiting improved in their provision of home environments supportive of healthy development.
- Parents and caregivers participating in parent education programs increased their positive parenting.



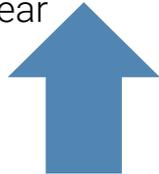
Summary of Improved School Readiness Outcomes

The ultimate goal of child care and PreK programs is for children to progress toward being on track to be school ready. Programs continue to make progress in these essential school readiness skills.

3% better than last year



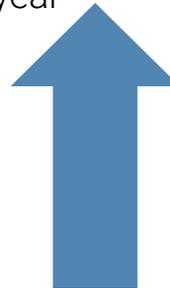
3% better than last year



Continues to be strong



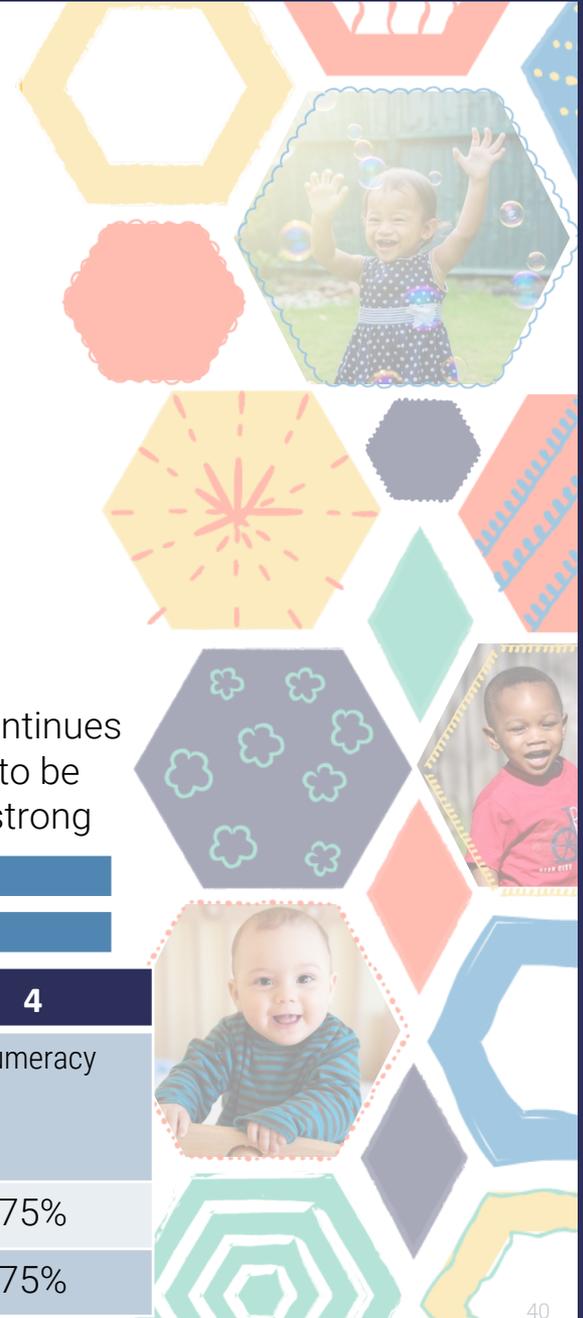
5% better than last year



Continues to be strong



| Age | 3 | 3 | 4 | 4 | 4 |
|-----------|----------|----------|------------------------|--------------------|----------|
| Outcome | Literacy | Numeracy | Language Comprehension | Phonemic Awareness | Numeracy |
| 2018-2019 | 31% | 76% | 78% | 40% | 75% |
| 2017-2018 | 28% | 73% | 78% | 35% | 75% |



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