

Nebraska Early Childhood Longitudinal Data Linking Pilot Study



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Focus for Today

Where have been?.....

Where are we today?

1. Data Indicators: ECE Data Coalition
2. Longitudinal Analysis of Nebraska Student & Staff Record System data and state ECE program data
3. Preliminary findings: kindergarten entry scores from Schuyler and Fremont

Up til Now: Where have we been?

Cross-sectional data: An Annual Snapshot in Time

- Program Quality Data
- Birth to Five Child Outcomes
- Long Term Academic Progress

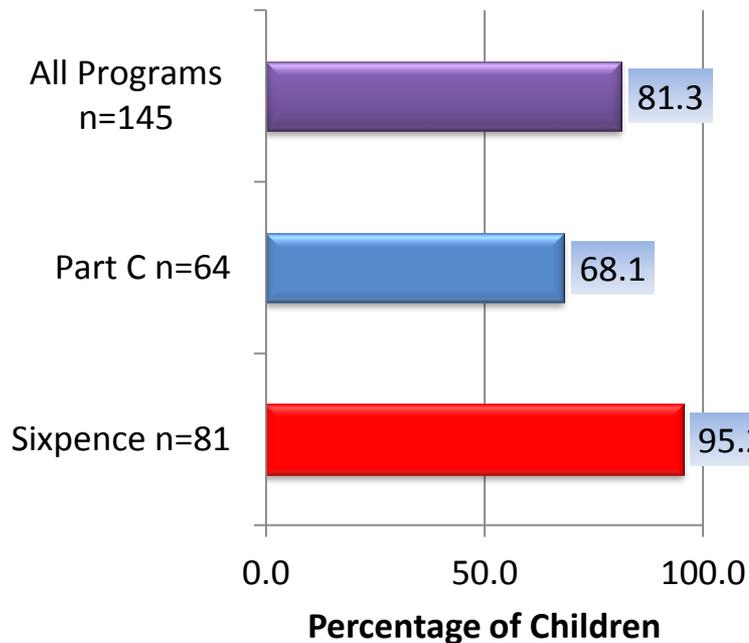
Child Outcome Data



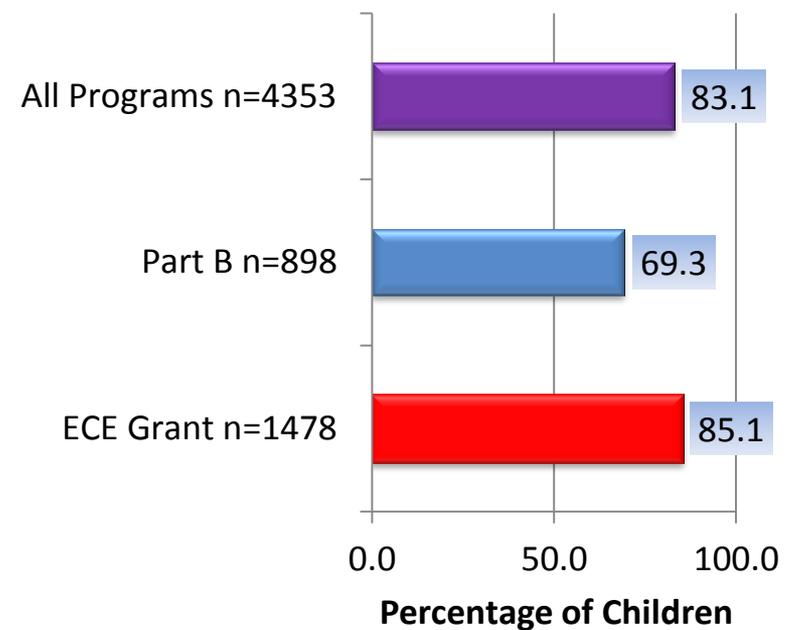
Did participation in ECE programs result in improved child developmental skills?

Key Finding: The majority of preschool children met the state benchmark and made greater than expected gains across the school year.

Progress over Time: % of Children that Met State Benchmark



Infant Programs



Preschool Programs

Long Term Academic Progress



Key Finding: A majority (54% or higher) of students with ECE experience were proficient in reading, math or writing across 4th through 11th grades.

Painting a Picture of Nebraska's Young Children



NEBRASKA Early Childhood Education (ECE) DATA INDICATORS: ECE DATA COALITION



NE ECED Data Indicators: ECED Data Coalition

- 15 Indicators—where we have data today—push into new areas we know are important.
 - 14 indicators TGKF (together for Kids and Families)
- Indicator 10-- percent of at risk 0-5 year olds served by good quality ECE programs (currently reporting on the percent of at-risk 3 and 4 years being served).
 - Denominator—number of children at 185% of poverty who are ages 3 and 4 in NE. Need: unduplicated counts of other risk factors not calculated as yet.
 - Numerator—number of children with risk factors (now, 185% of poverty, children not speaking English) at ages 3 and 4 served by quality NE programs (NDE, Head Start). Need: unduplicated counts of children with risk factors in other quality programs, e.g., NAEYC accredited).

INTEGRATED LONGITUDINAL DATA: KEY DATA SETS

- NDE Nebraska
Student Staff Record
System Data Set
- Teaching Strategies
GOLD



What children are part of the longitudinal data set?

Children who are in school district funded programs.....

- Sixpence
- Early Childhood Grant Programs
- School-district Pre-K Programs
- Head Start children who are in partnership programs with school districts
- Early Childhood Special Education
- Early Development Network



Longitudinal Data Set.....

Links to New Questions

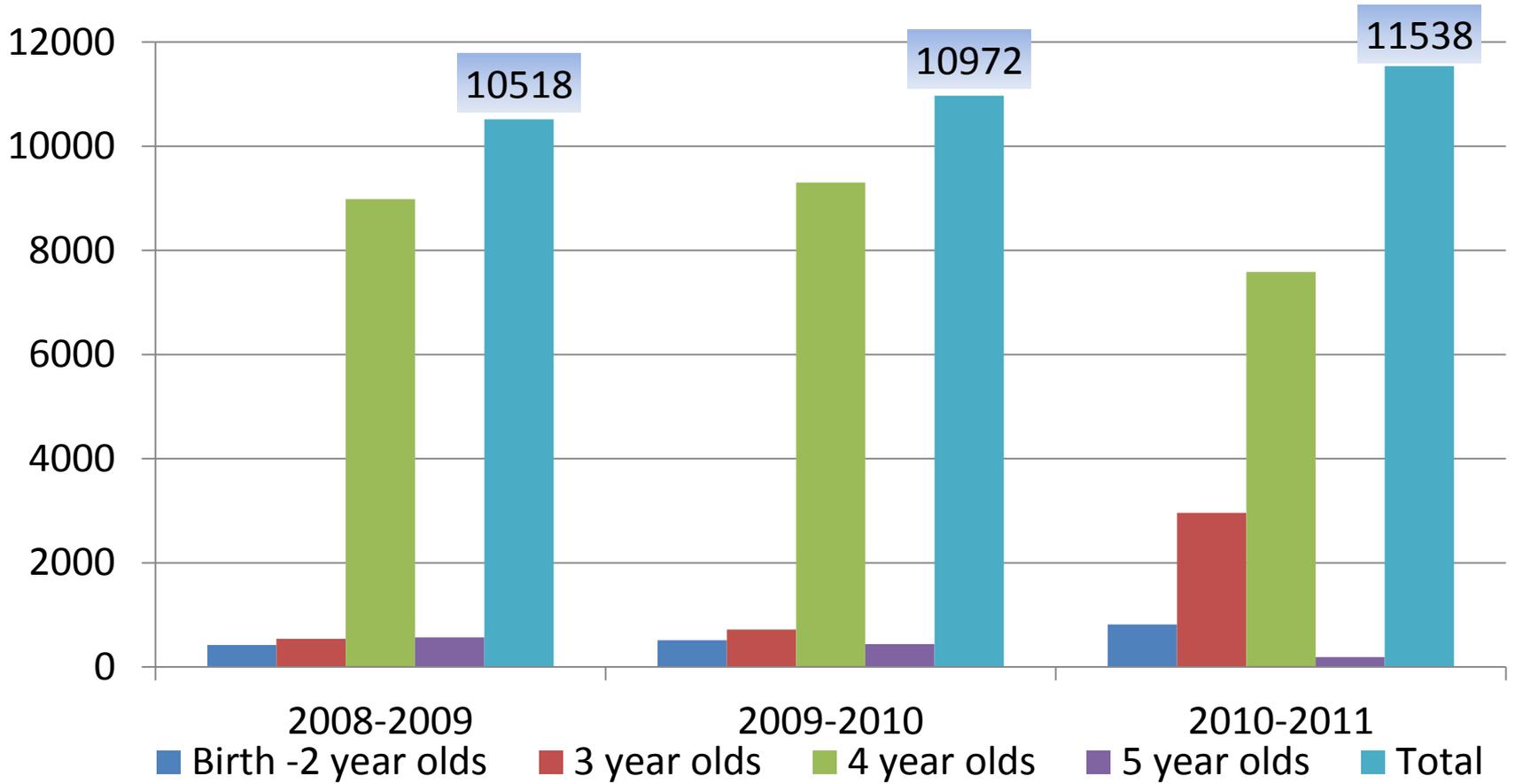
- Are we increasing our reach? For younger children?
- How long do children stay in ECE programs?
- What do we know about enrollment of children with disabilities?
- Do gain scores vary by age of enrollment?



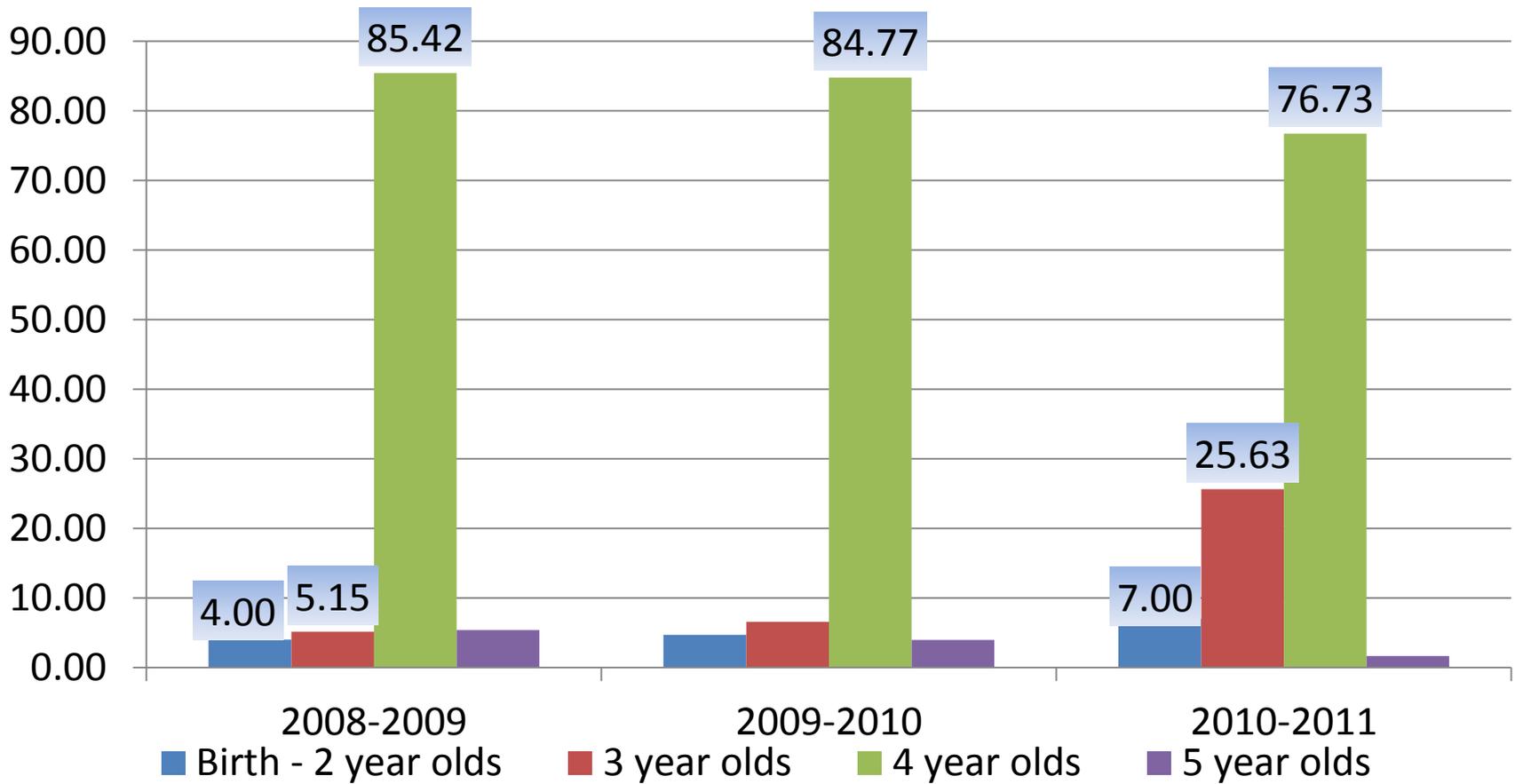
How many children did Nebraska serve over the past 3 years?

Key Finding: Over the past 3 years Nebraska increased the # of children served by 10%.

Number of Children Served by Age, 2008-2011



Percent of Children Served by Age, 2008-2011

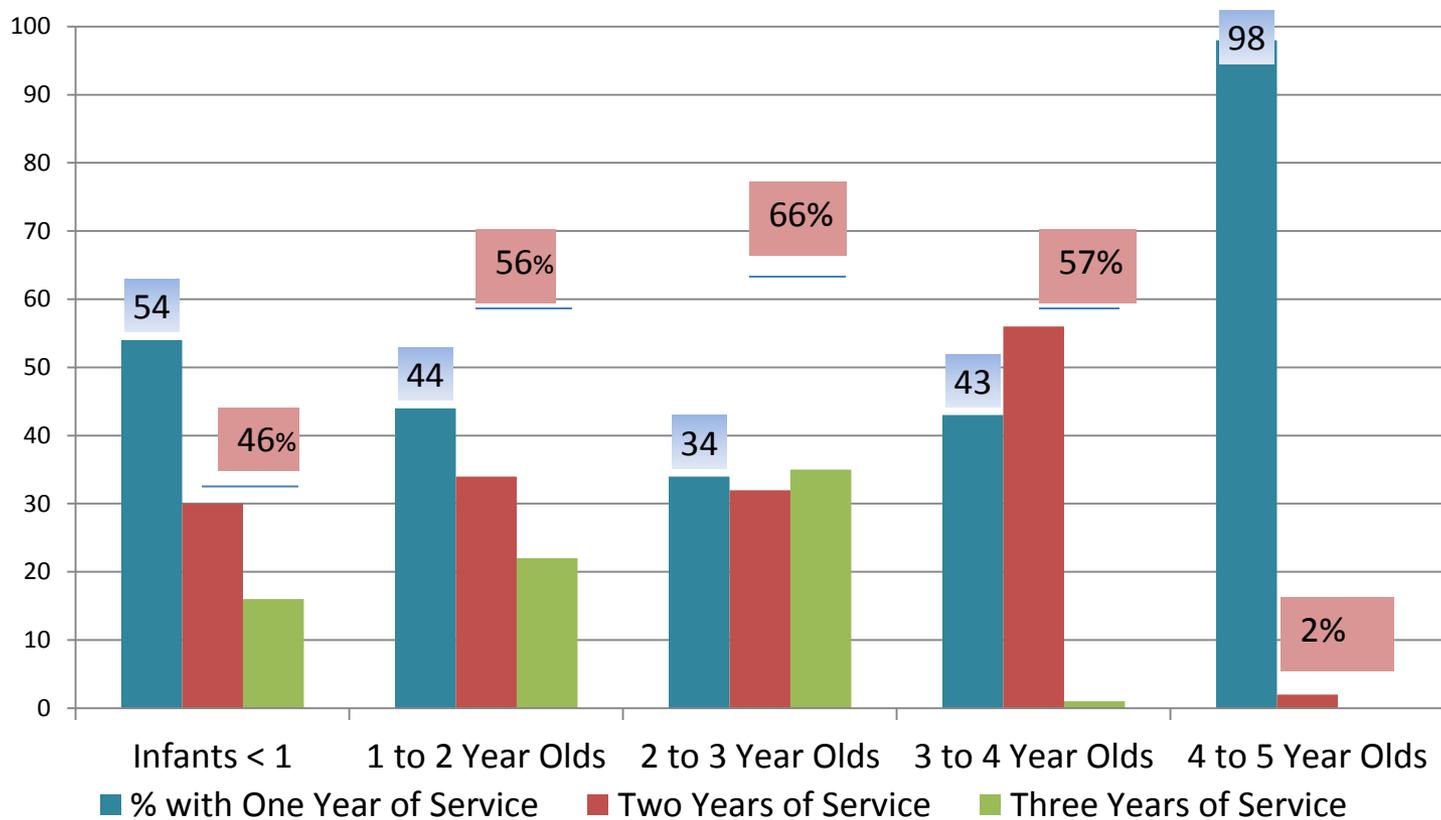


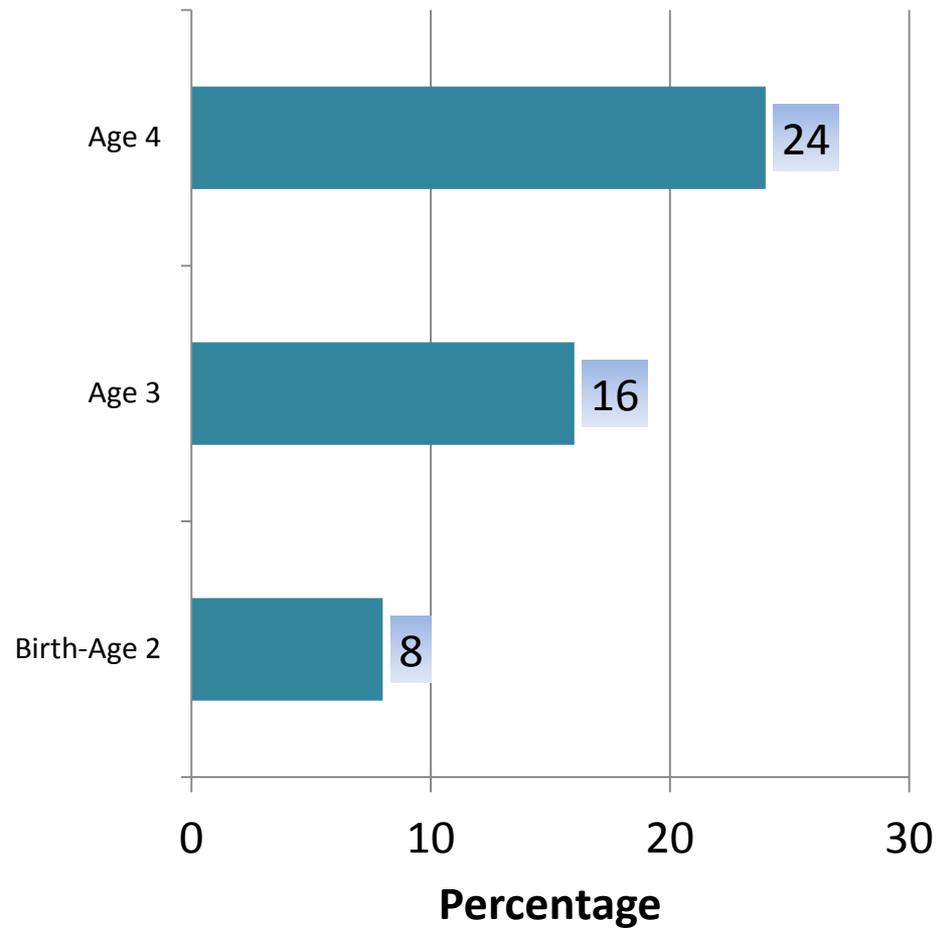


How long do children stay in ECE programs?

Key Finding: Children who enter ECE at 2 have the highest % of children participating for 2 or more years. High % of children who enter at age 1 and 3 stay for 2 years.

Percent of Children with 1, 2 and 3 Years of Service in NE ECE Programs by Age of Enrollment, 2008-2011





What percentage of children served were English Language Learners?

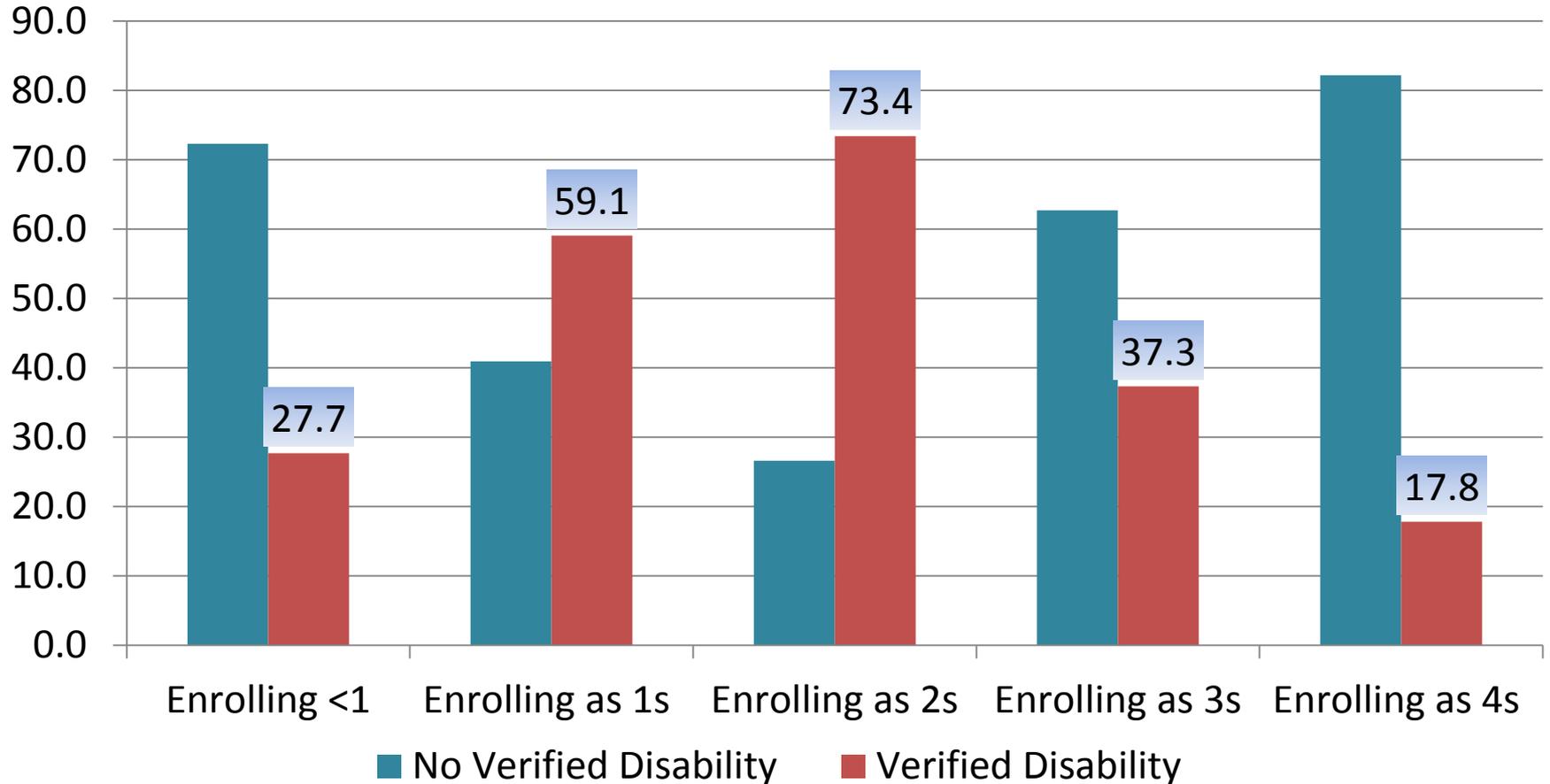
Key Finding: There are higher percentages of children who are English Languages Learners at age 4.



What is the landscape of children with and without disabilities?

Key Finding: At ages 1 and 2 there are higher proportions of children with disabilities.

Percent of Children Served with Verified Disability by Age of Enrollment, 2008-2011



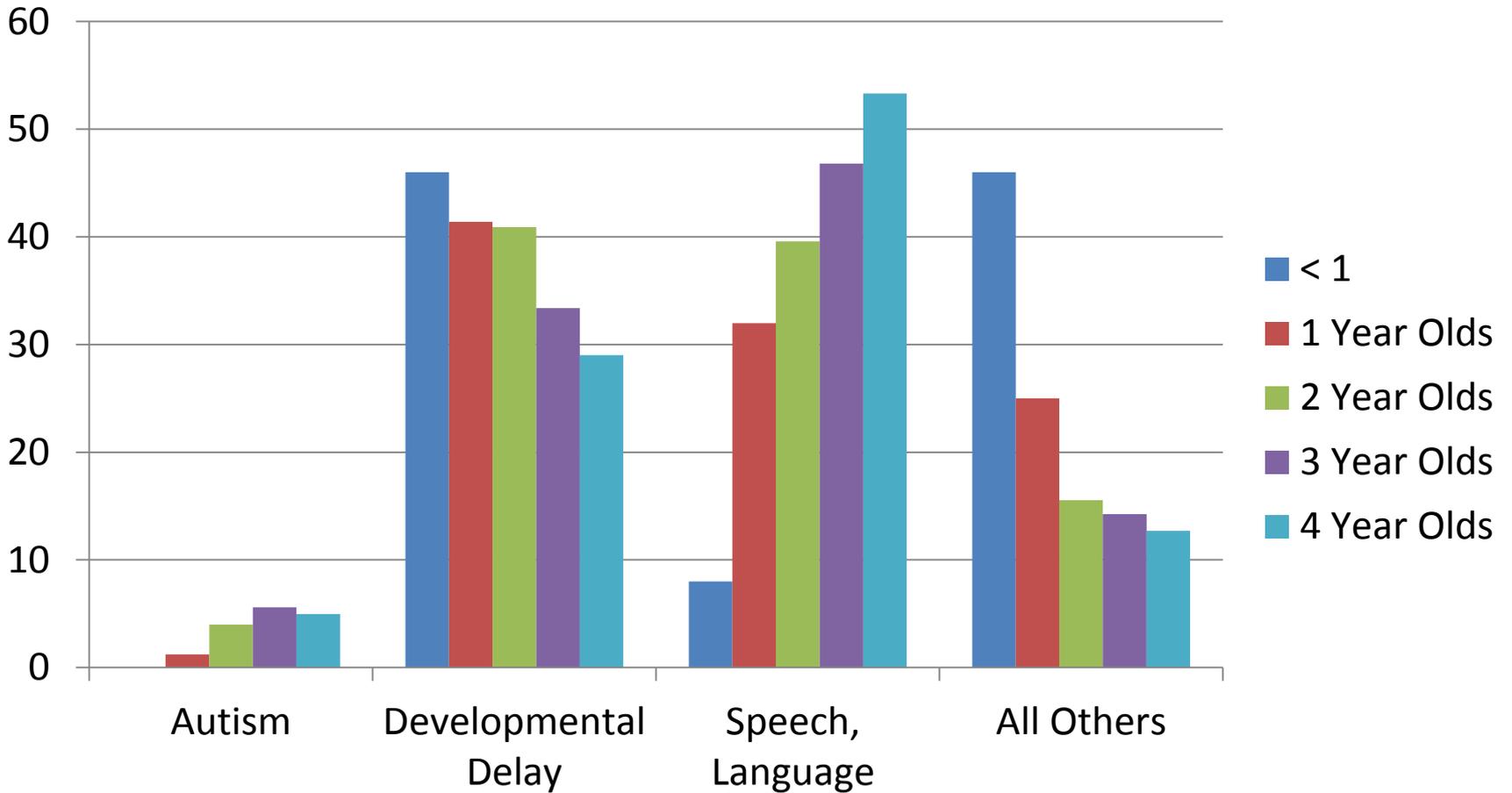
Data collected over 3 years, 2008-2009, 2009-2010, 2010-2011. N=26,638



What are the distribution of disabilities by age?

Key Finding: Higher percentages of infant and toddlers are verified with a developmental delay, while preschoolers are verified with speech and language problems.

Types of Disability by Age of Identification, 2008-2011



N=7,176 children with Verified Disabilities



How does fall to spring progress vary depending on children's age of entry into ECE services?

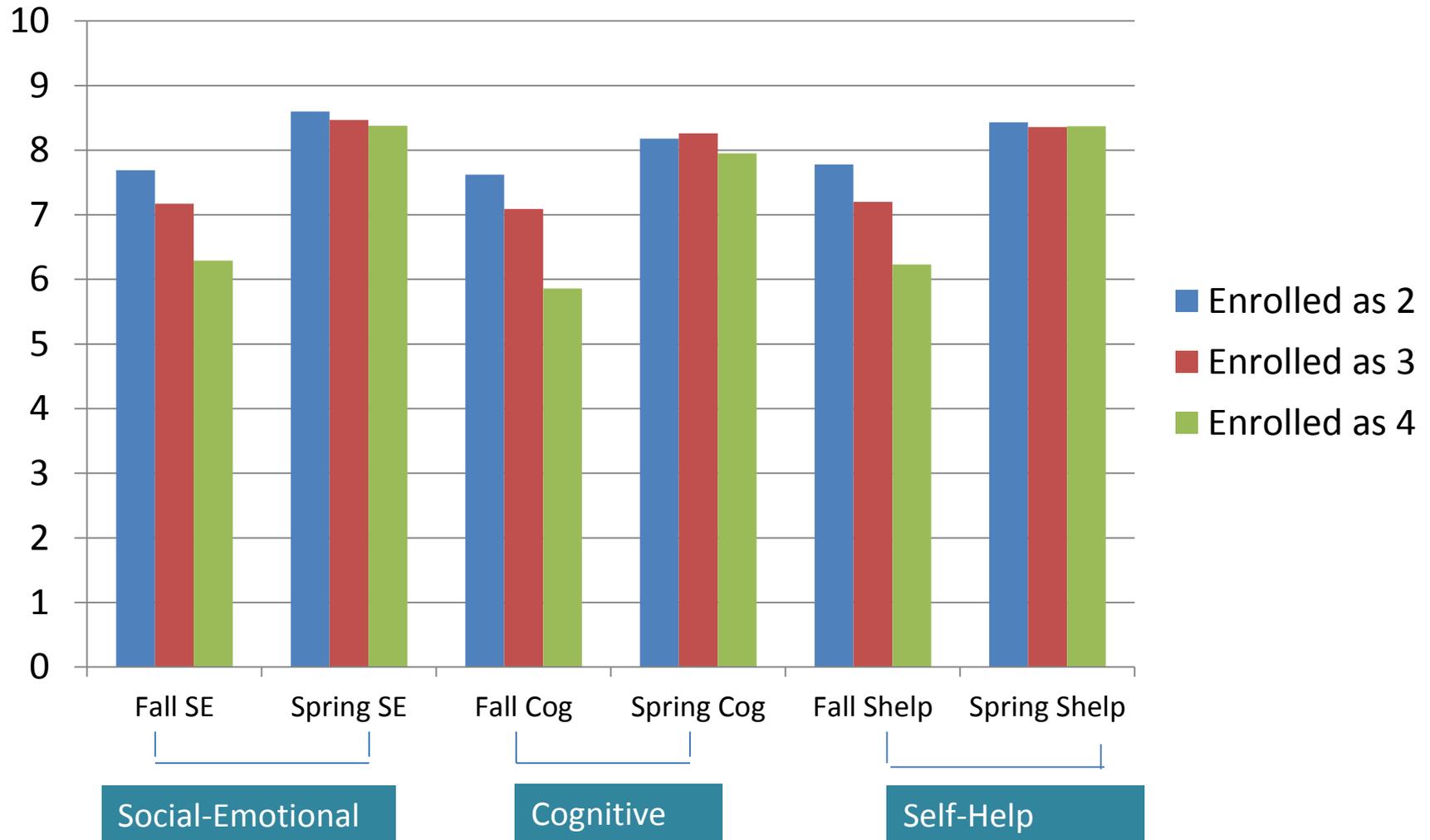
Key Finding: At age 4, children with previous ECE (enrolling at 2 or 3) have higher fall scores (than those enrolling at 4) but all groups of children progress from fall to spring.



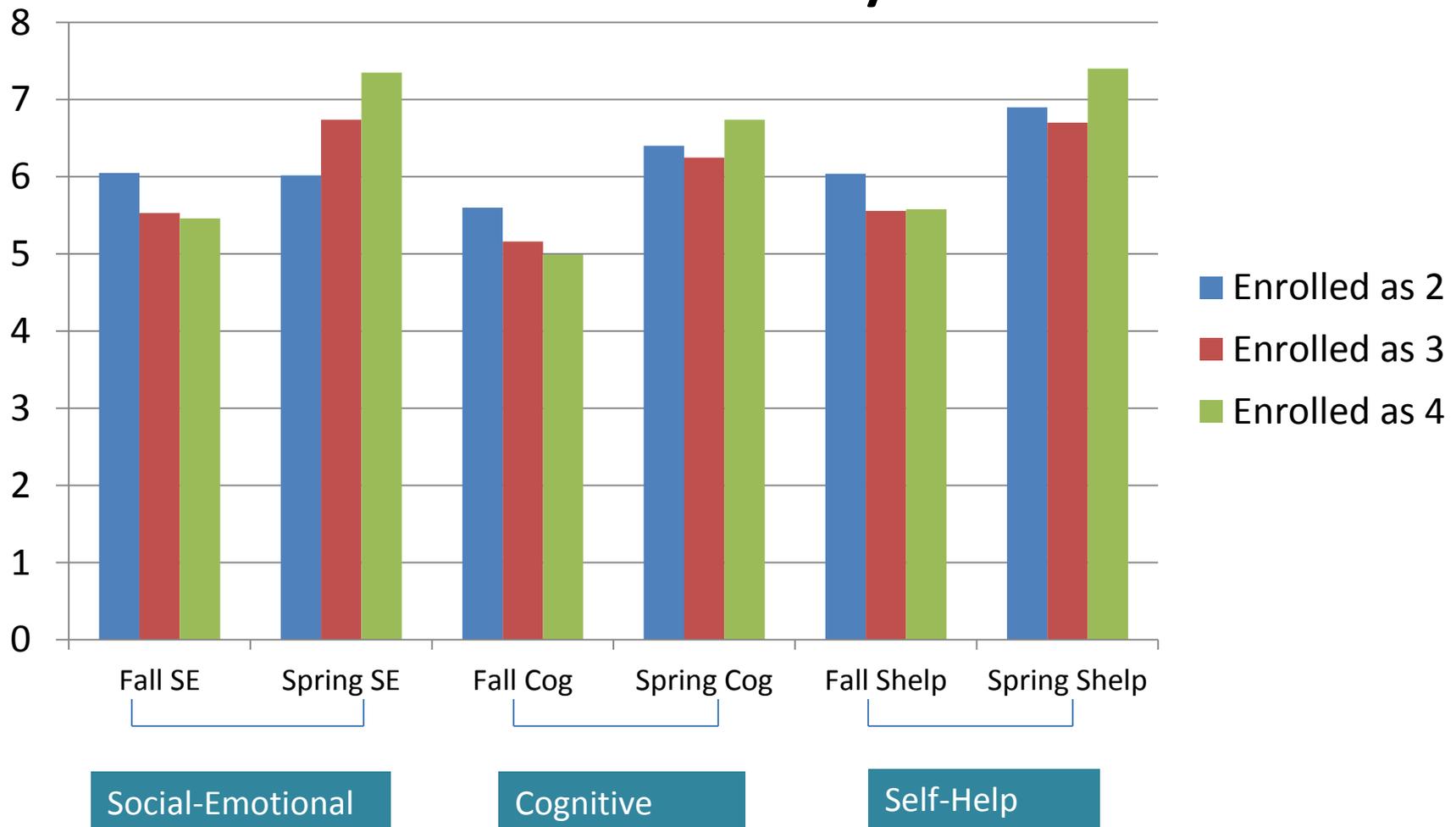
Do multiple years of ECE improve children's outcomes?

Key Finding: Children enrolling at 2 have descriptively better outcomes than others (small sample) across Social Emotional and Self Help; those enrolling at 3 have highest in Cognitive scores. Enrolling as 4s, children catch up in Self Help but not other two areas.

4 Year Old Children in 2010: GOLD scores by age of entry, no verified disability



4 Year Old Children in 2010: GOLD scores by age of entry, verified disability

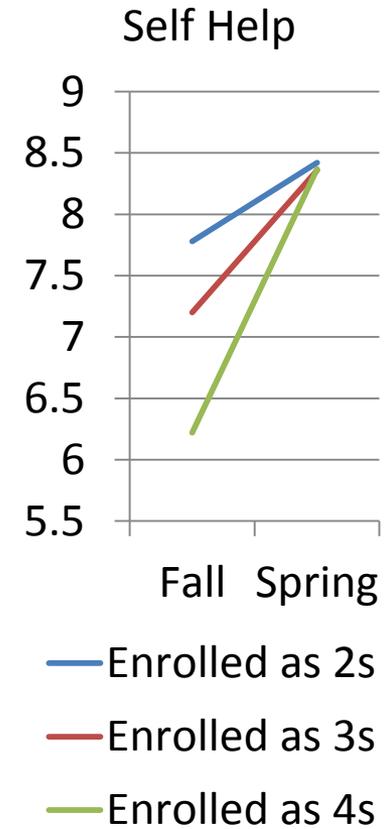
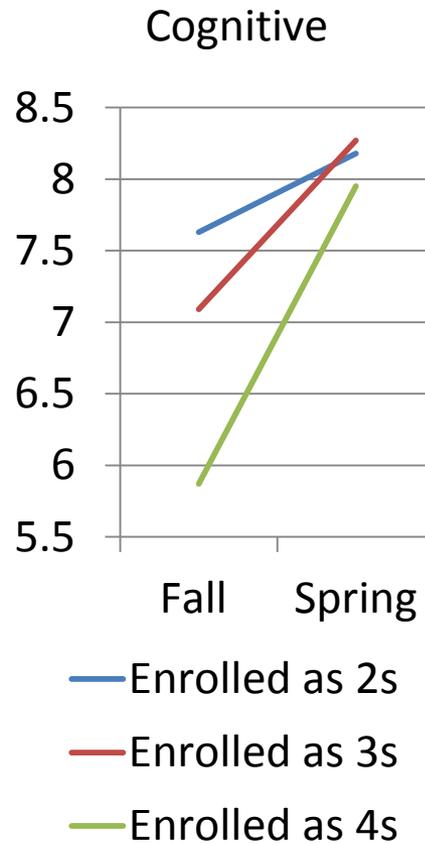
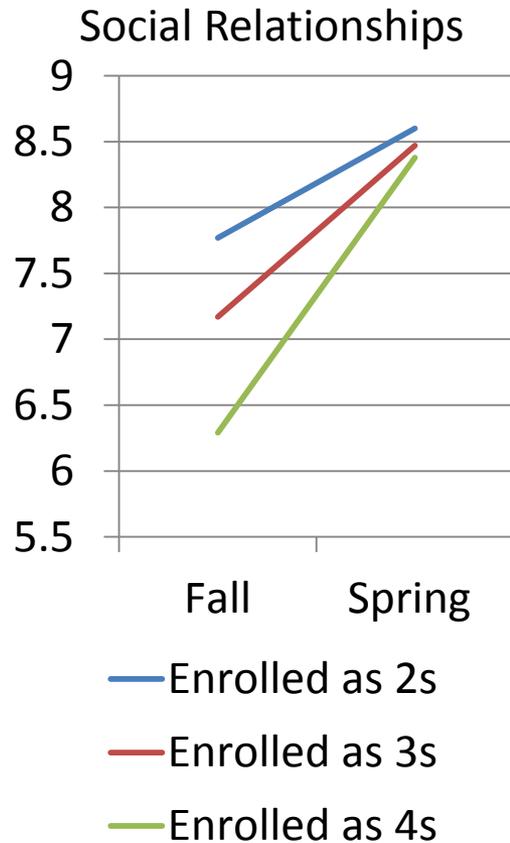




Do age 4 fall to
spring
trajectories look
different, by age
of child
enrollment?

Key Finding: Yes, trajectories are different depending on whether children are in the first, second or third year of services when they are 4.

4 year olds GOLD factor scores by age of entry, no verified disability

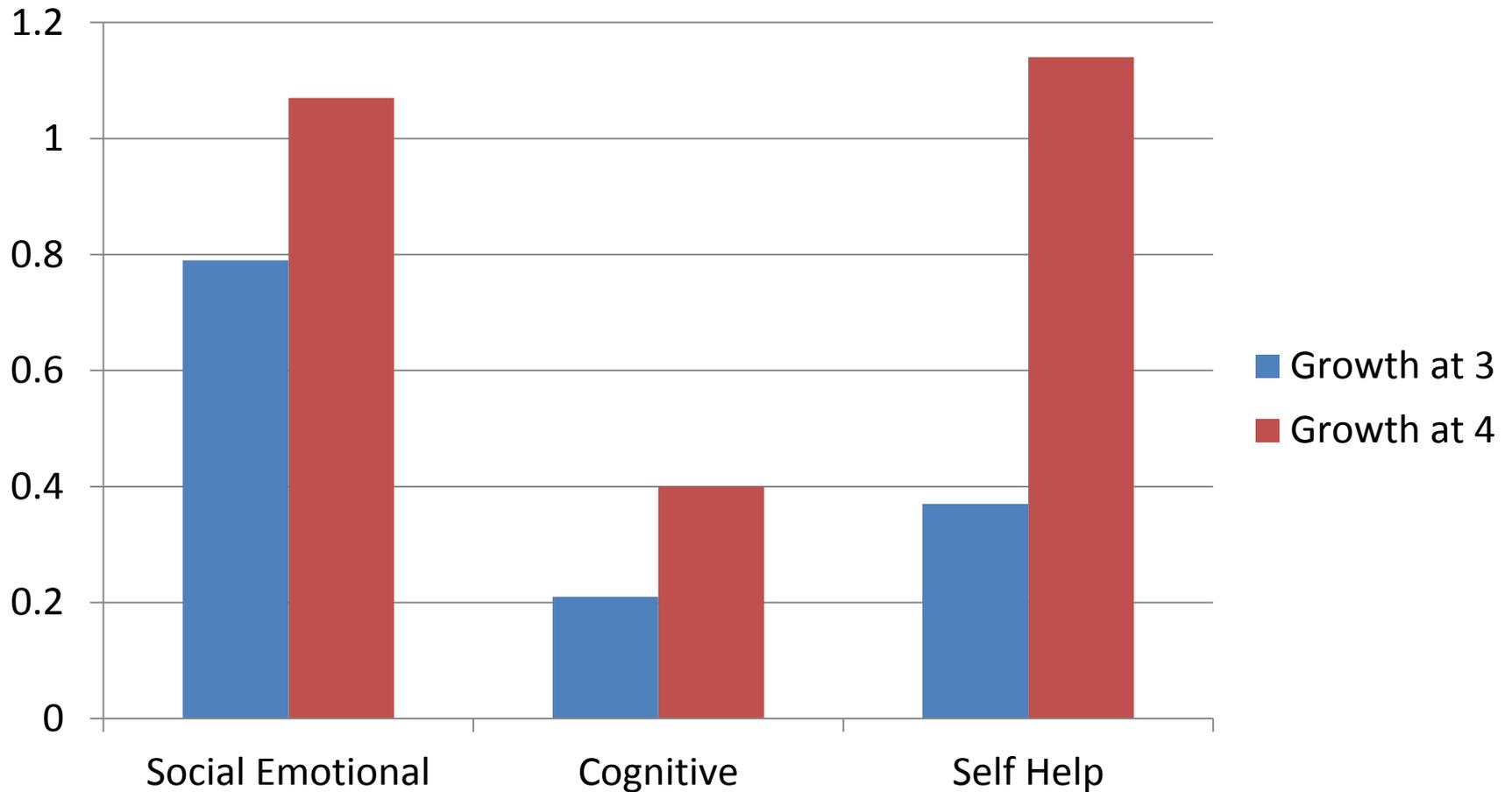




Do children enrolling as 3s improve more during their age 3 year vs. their age 4 year in ECE?

Key Finding: Children enrolling as 3 year olds show more growth in the 4 year program than in the 3 year program.

GOLD Score Fall to Spring Increases For Children Enrolled as 3s, when they are 3 and 4



N = 359-360



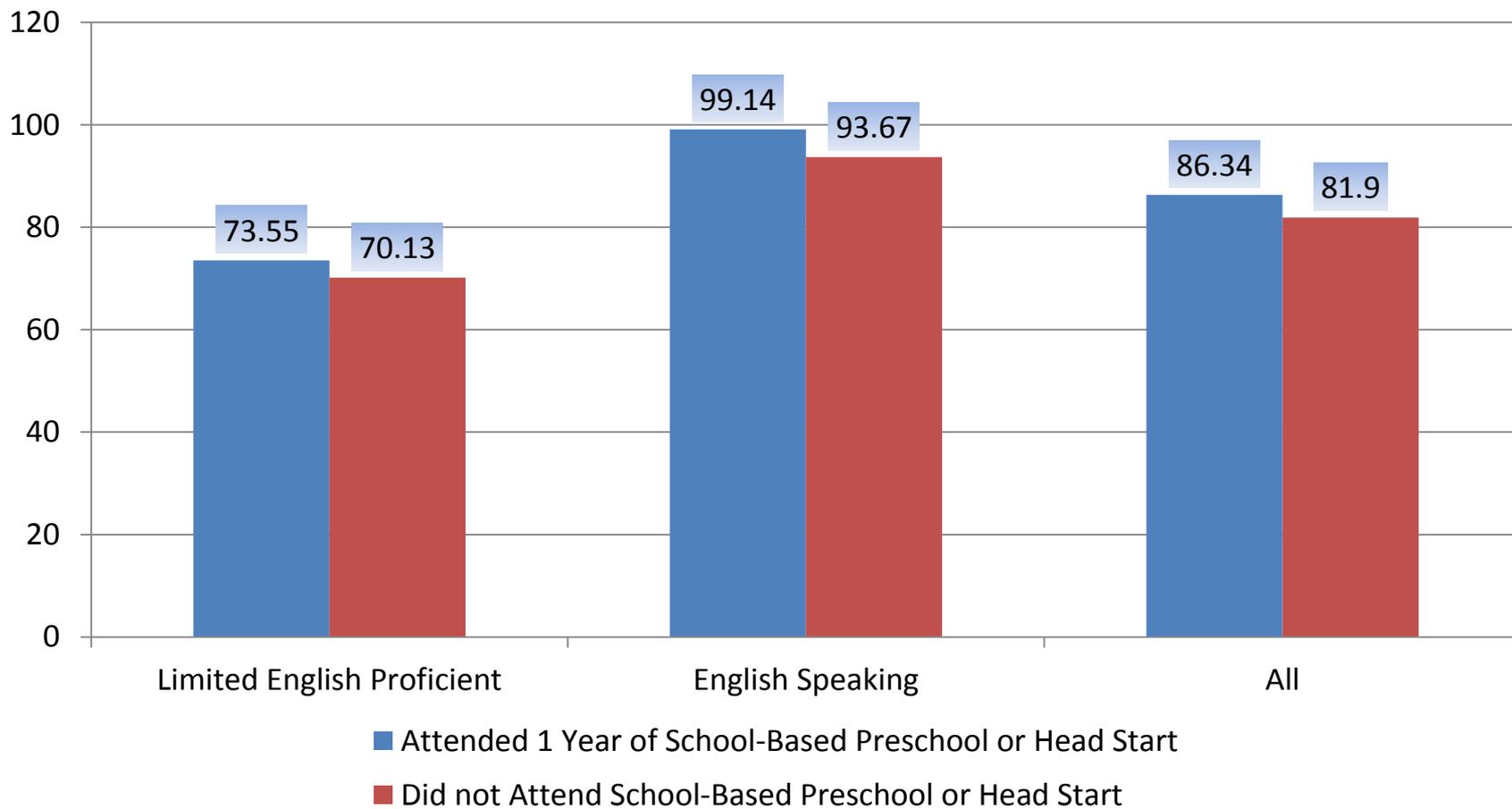
KINDERGARTEN ENTRY SCORES



Does ECE change the kindergarten entry outcomes in a community?

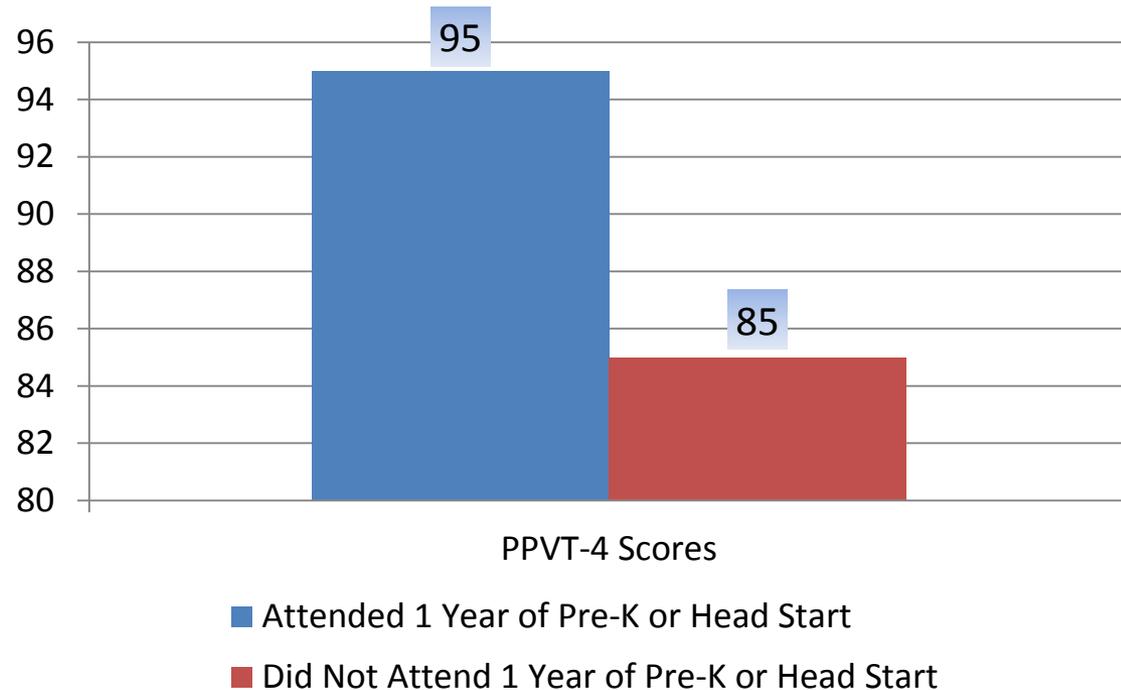
Key Finding: The Save the Children Evaluation in Schuyler and Fremont shows better receptive language at school entry among children who have had school-based or Head Start ECE than for their counterparts.

Kindergarten Entry PPVT Scores - Schuyler



Kindergarten Entry PPVT-4 Fremont

Comparison of PPVT-4 Scores at Kindergarten Entry Who Received at Least One Year of School-Based Pre-K or Head Start and Those Who Did Not Among Children Who Qualify for Free and Reduced Lunch



- Children qualifying for FRL who received at least 1 Year of School-Based Pre-K or Head Start (Blue, n = 21) PPVT-4 score = 94.8
- Children qualifying for FRL who did not receive at least 1 year of School-Based Pre-K or Head Start (Red, n = 68) PPVT-4 score = 84.7

Conclusions

- More children being served each year and growth is with 3 year olds.
- Children who are enrolling at ages 1, 2 & 3 are staying in the program the longest. Need to identify strategies to support families of infants under 1 to continue participation in ECE programs.
- Children progress; those with multiple years of ECE progress differently from those with a single year. 3 year olds (in longitudinal analysis) had less significant growth pattern and may benefit from further study.
- ECE makes a difference at school entry.

Next Steps

- Explore possibilities to include more (preferably all) Head Start children as part of the data set to expand our “picture of NE children,” but identify them as Head Start-funded to prevent duplicated counts.
- Explore possibilities of statewide kindergarten assessment to further determine outcomes of early childhood programs and support improvement strategies.
- Begin to link program quality with child outcomes



Questions??