



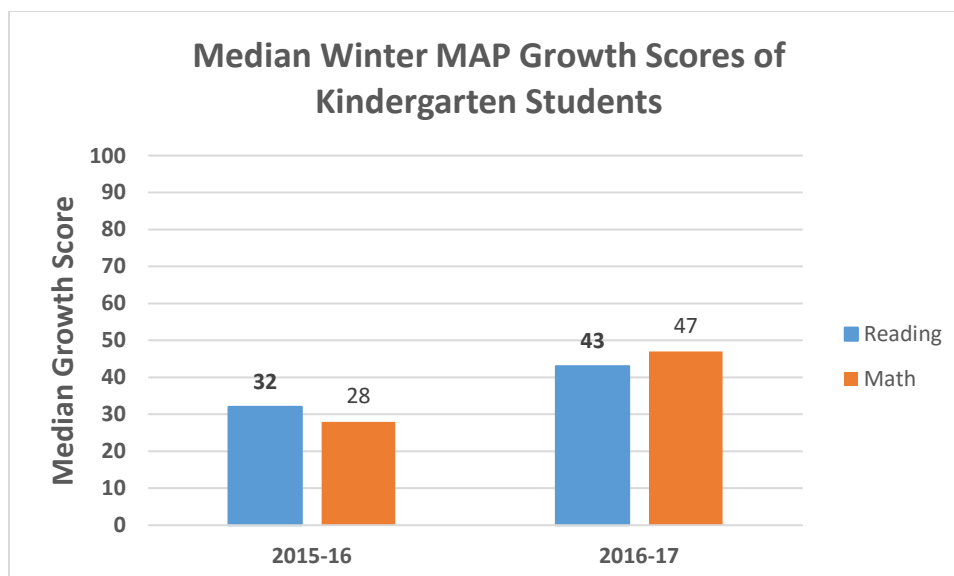
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Key Findings

- 49% of kindergarten students enrolled in Fall 2016 were considered kindergarten ready, i.e., they earned mean reading RIT scores ≥ 141 .
- The starting quintiles for Critical Focus Schools in Fall 2016 following the NWEA MAP assessment were on par with all elementary schools. However, while the mean reading RIT score for Critical Focus Schools was comparable to all schools, the mean math RIT score was slightly lower.
- Kindergarten students currently attending Critical Focus Schools had lower enrollments in pre-K programs than general kindergarten students. While 59% of economically disadvantaged kindergarten students in 2016-17 were enrolled in a pre-K program in 2015-16, 51% of kindergarten students currently attending a Critical Focus School participated in a pre-K program in 2015-16. Students with pre-K experience earned higher mean RIT scores in both reading and math for the NWEA MAP Fall 2016 assessment
- Administrators can support schools with low kindergarten readiness by identifying students needing intervention early in the next school year and enrolling them in the appropriate Tier II and Tier III support courses.

Evaluating Kindergarten Readiness

In Fall 2016, the District started to measure kindergarten readiness using the NWEA MAP assessment. Currently, SCS recommends that a kindergarten student obtain a minimum Reading RIT score of 141 and a minimum Math RIT score of 140 to be considered ready for kindergarten; 49% of kindergartners met this benchmark at the start of 2016-17. Although the NWEA MAP was administered last year, the test was not given until November 2015. As a result, no comparable data from last year exists to compare kindergarten readiness to this year. However, using the Winter MAP assessments from 2015-16 and 2016-17 as a proxy, the mean growth scores show improvement among kindergartners in 2016-17.





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In Fall 2016, 49% of the children enrolled in kindergarten earned a RIT reading score of 141 or above; i.e. they were considered ready for kindergarten. Additionally, the Department of Assessment and Accountability made the following observations contrasting the readiness of children who had enrolled in a previous pre-K program versus children who had not completed a pre-K program:

- The Fall 2016 MAP data for kindergarten students with pre-K experience resulted in a 9-point higher Achievement Percentile Mean in Reading and Math than students that have no pre-K experience.
- Students with pre-k experience exceeded the district RIT goal for Foundational Skills; Language and Writing; Operations and Algebraic Thinking; Number and Operations.
- Students with pre-k experience had a 9- to 15-point higher Achievement Percentile Mean in Reading and Math in subgroups such as gender, economically disadvantaged, race, and English Language Learners.

One additional kindergarten readiness measure that continues to be used by the Department of Early Childhood Programs has been iStation scores. Currently, the target goal is for 77% of the students to exit pre-K with the prerequisite literacy skills that are required for kindergarten success; i.e., their iStation literacy scores need to be on the 40th percentile or above. Of all students that met the minimum Reading RIT score for kindergarten readiness in 2016-17, 74% exited pre-K the previous year with adequate iStation scores (40th percentile or above).

Starting Quintile Levels of All Kindergarten Students vs. Critical Focus Schools

In this study, the starting quintiles of Kindergarten students taking the NWEA MAP in Fall, 2016 were compared for the general kindergarten population, as well as the 14 elementary schools that are part of the Critical Focus Schools. On the Fall 2016 MAP assessment, students from the Critical Focus Schools had a mean reading RIT score of 137.6 and a mean math RIT score of 131.7. In general, kindergarten students had a mean reading score of 138.6 and a mean math score of 134.4, meaning Critical Focus Schools are currently performing on par with all elementary schools in reading, while they are performing slightly worse in math. Starting quintiles for the individual Critical Focus Schools are found in Appendix A.

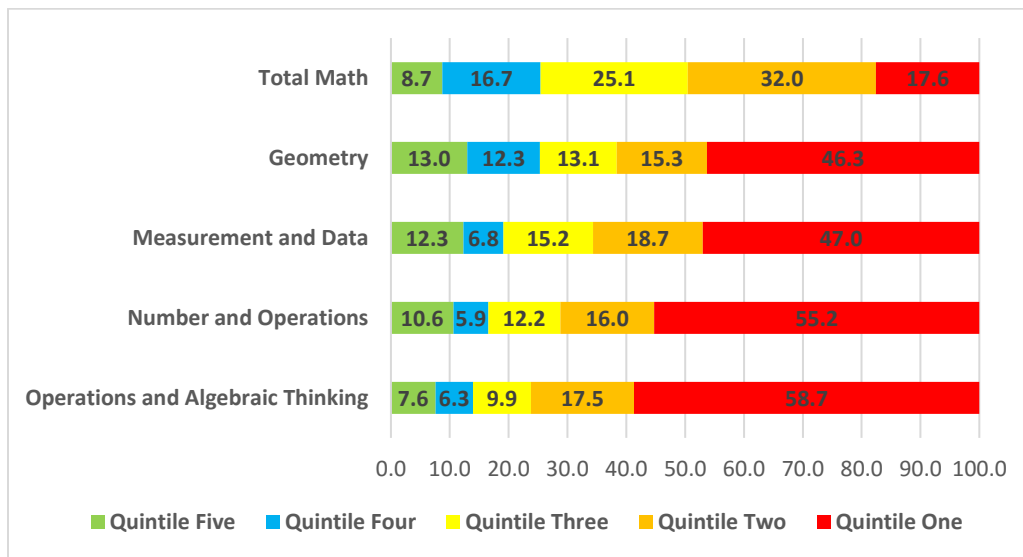
Using the results from the same test administration, the starting quintiles were compared for both Critical Focus Schools and the general Kindergarten population. Students in the top (fifth) quintile scored in the 81st-100th percentile, while those in the bottom (first) quintile scored in the 1st-20th percentile compared to a national sample of kindergarten students. Students at the Critical Focus schools had comparable starting quintiles to all elementary schools in both reading and math. For both groups, administrators and teachers can ensure students with reading or math deficiencies get the appropriate interventions. Specifically, principals will need to benchmark the students with MAP scores in the bottom 15% in easyCBM and refer them to the appropriate intervention programs.

Beyond overall quintile scores, Fall MAP results provide educators with a sense of students' relative strengths and weaknesses within each subject through goal strands. The distribution of students by goal strand are shown in the following charts and ranked from highest performing to lowest performing strand for each subject and student group. For example, kindergartners performed best on the geometry strand and lowest on operations & algebraic thinking within the math assessment.

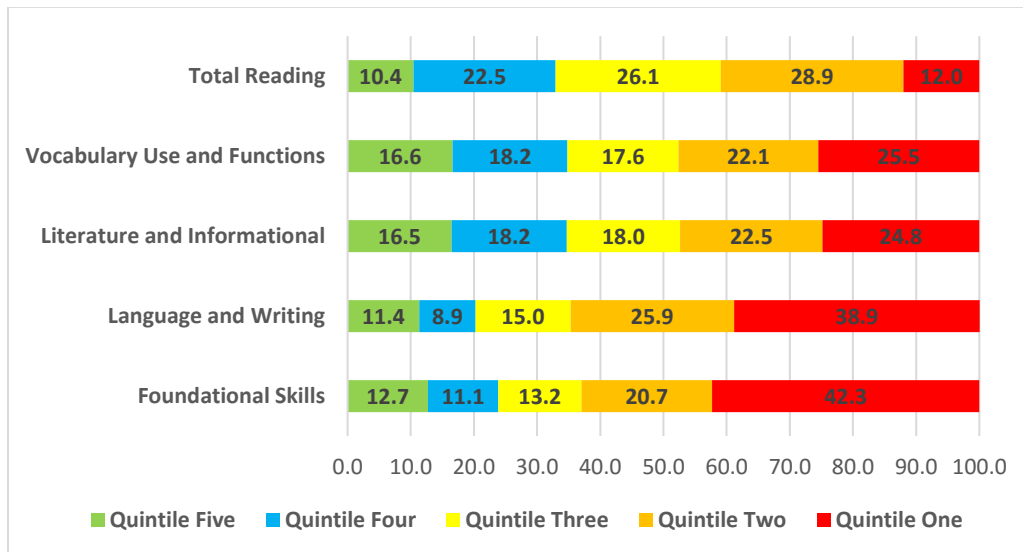


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Percentage of Kindergarten Students in Each Achievement Quintile, Fall 2016—Math



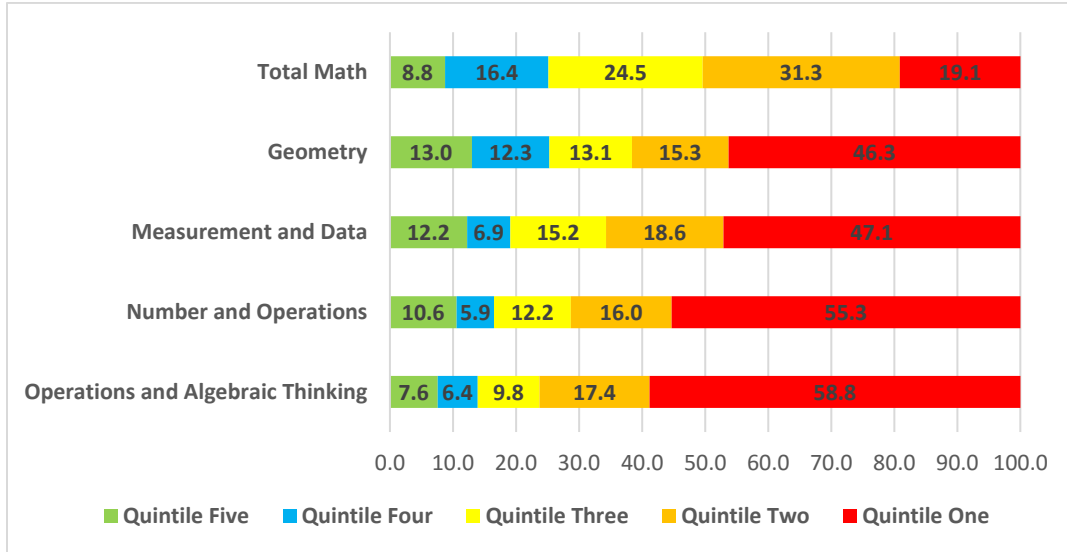
Percentage of Kindergarten Students in Each Achievement Quintile, Fall 2016—Reading



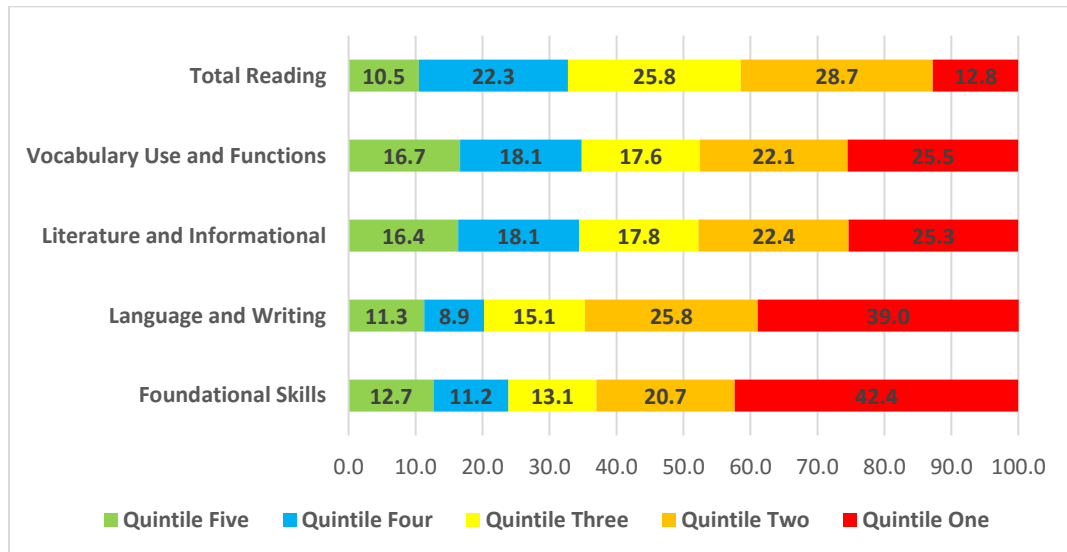


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Percentage of Kindergarten Students in Each Achievement Quintile for Critical Focus Schools, Fall 2016—Math



Percentage of Kindergarten Students in Each Achievement Quintile for Critical Focus Schools, Fall 2016—Reading





Destination 2025 Monthly: April 2017

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EasyCBM Benchmark and Enrollment in Intervention Courses

Every fall, winter, and spring, Assessment provides a list of the students scoring on the bottom 15% of NWEA MAP to the schools that then assess the students in easyCBM to determine their tier for intervention. Once the students are benchmarked in easyCBM, those students scoring on the 1st to 9th percentile are referred for Tier III intervention, while those scoring on the 10th to the 24th percentile are referred for Tier II intervention.

In Fall 2016, 942 kindergarten students were identified as needing intervention in math, while 882 were identified as needing intervention in reading. Out of the 942 math students, 730 students were benchmarked in easyCBM, and 302 students were enrolled in intervention classes. Out of the 882 students identified as needing reading intervention, 695 were benchmarked and 318 students were enrolled in the appropriate Tier II or Tier III classes. Table I breaks down the risk level of benchmarked kindergarten students. A risk level of “low” means that student should be placed in Tier I. A risk level of “some” indicates that the student should be enrolled in a Tier II course, while a risk level of “high” indicates that a student should be enrolled in Tier III intervention courses.

Table I. Risk Levels of Benchmarked Kindergarten Students

	Low Risk	Some Risk	High Risk	Total Benchmarked
Reading All KK	284 (41%)	197 (28%)	214 (31%)	695
Math All KK	254 (35%)	234 (32%)	242 (33%)	730

Prior Enrollment in a Pre-K Program

One other way to assess kindergarten readiness is the successful completion of a certified pre-K program. Table 2 lists the pre-K participation for SCS for the last four years. Out of the 8,115 economically disadvantaged (ED) students enrolled in Kindergarten for 2016-17, 4,765 (59%) completed a pre-K program in 2015-16. 405 out of 798 kindergarten students currently enrolled in Critical Focus Schools (51%) were enrolled in a pre-K program last year. In order to increase participation in pre-K programs, the Department of Early Childhood Programs suggests that approximately 3,000 additional pre-K seats are created in SCS schools to accommodate all the expected economically disadvantaged children in the District. Moreover, students who enrolled in a pre-K program in 2015-16 had higher mean reading and math RIT scores than students who had not enrolled in a pre-K program. Table 3 lists the schools that had the highest pre-K participation in 2016-17. Although the math RIT scores did not meet the standards for kindergarten readiness, all ten schools had mean reading scores that indicated their students were prepared for kindergarten. Charters were not included in the list because they are not required to use the NWEA MAP to assess their students. Given early indications that pre-K participants are more likely to start kindergarten better off academically, these findings suggest that increasing pre-K program participation would increase kindergarten readiness.



Table 2. Pre-K Enrollment for SCS–2013-2016

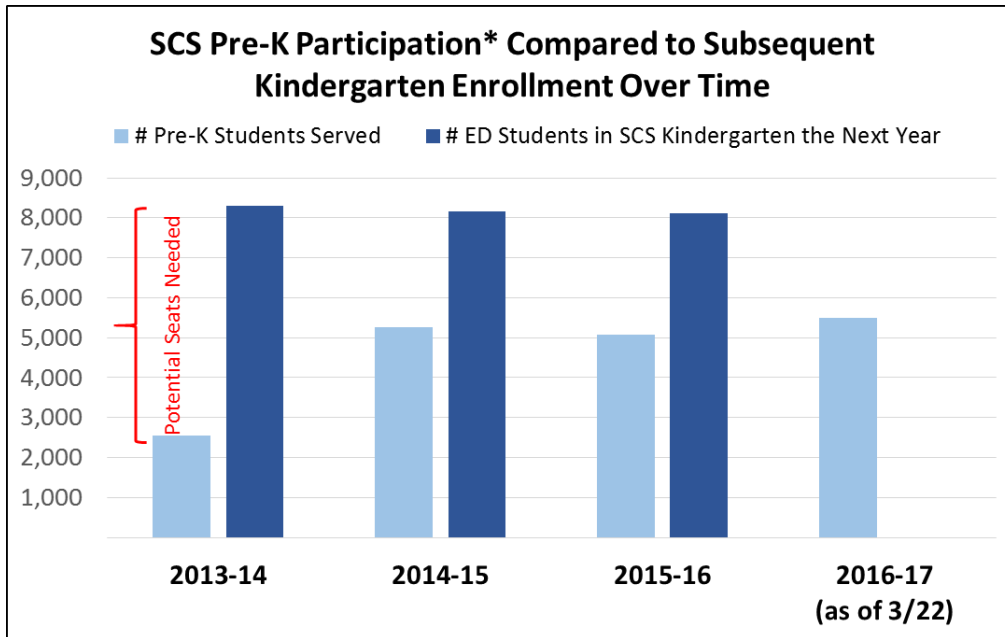


Table 3. Schools With the Highest Pre-k Enrollment and Mean RIT Scores (2016-17)

School	Percent Who Attended Pre-K 1516	Mean RIT Score Fall 2016 Reading	Mean RIT Score Fall 2016 Math
Delano Elementary	96	141	136
Downtown Elementary	93	142	139
Raleigh-Bartlett Meadows Elementary	88	136	132
Dexter Elementary	86	141	136
Hawkins Mill Elementary	84	141	135
LaRose Elementary	83	140	133
Magnolia Elementary	83	140	136
Brownsville Road Elementary	82	143	137
Evans Elementary	81	141	137
Riverwood Elementary School	81	146	142

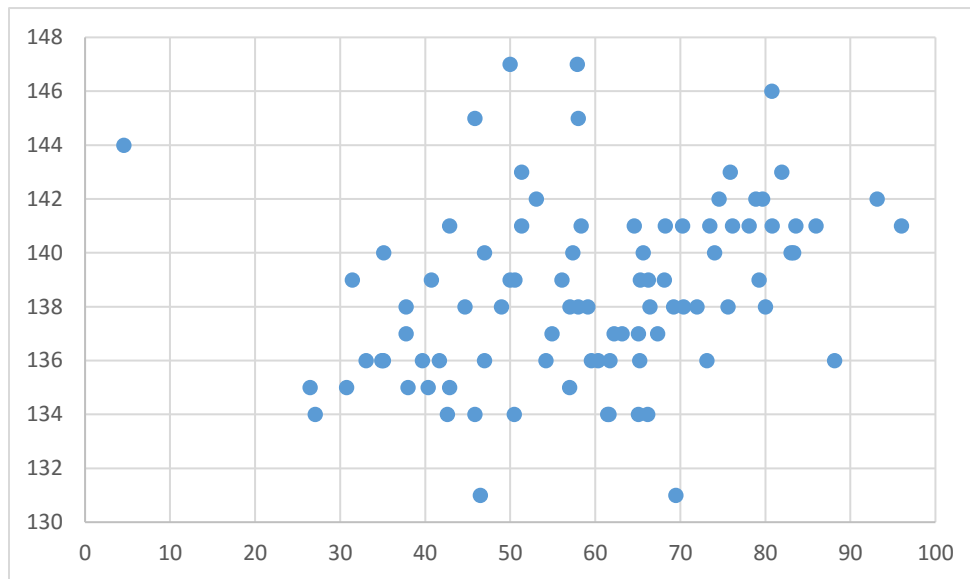


Destination 2025 Monthly: April 2017

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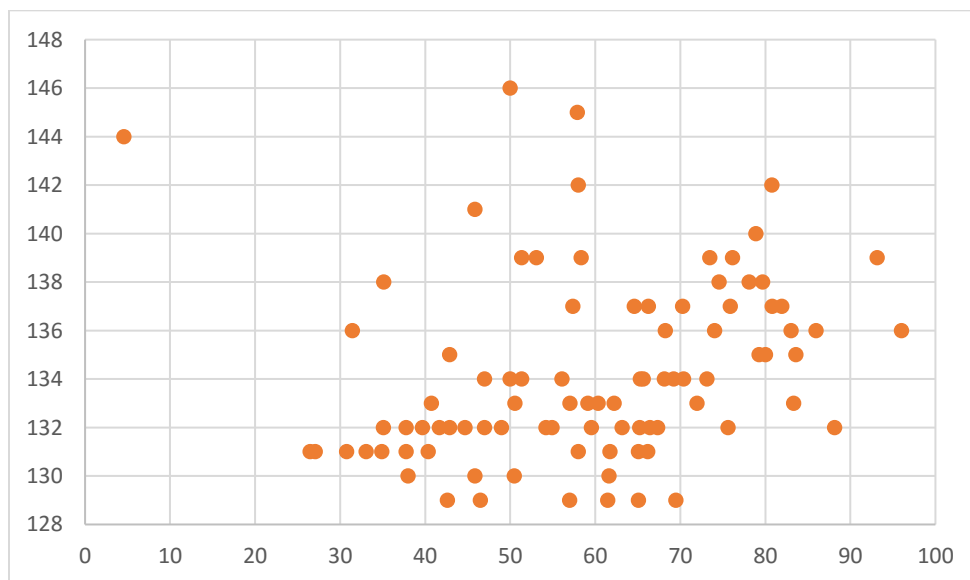
Percent of Kindergarten Students Who Attended a Pre-K program vs. Mean RIT Score (Reading)

Across all SCS elementary schools, those with 70% or more kindergartners participating in pre-K were more likely to achieve a high mean RIT score in reading compared to those with lower rates of pre-K enrollment.



Percent of Kindergarten Students Who Attended a Pre-K program vs. Mean RIT Score (Math)

Across all SCS elementary schools, those with 75% or more kindergartners participating in pre-K were more likely to achieve a high mean RIT score in math compared to those with lower rates of pre-K enrollment.

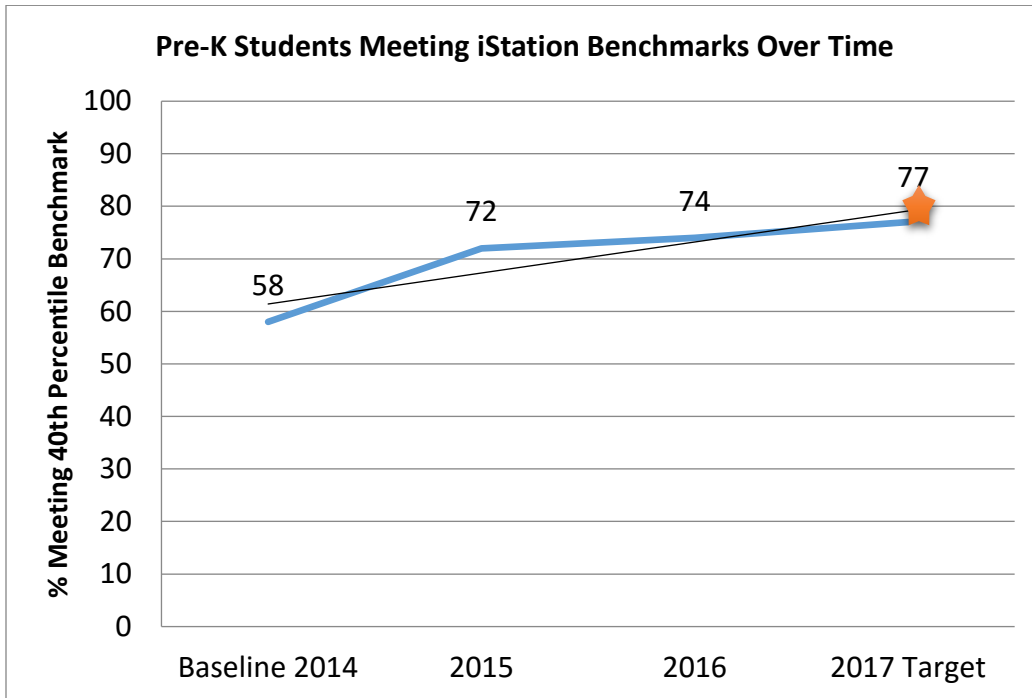




Destination 2025 Monthly: April 2017

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At SCS pre-K programs, kindergarten readiness is measured at the end of the year using iStation. Currently, the target goal is for 77% of students to exit pre-K with iStation scores in the 40th percentile or above. At the end of the 2015-16 year, 74% exited pre-K with adequate iStation scores. The exit scores have increased since the 2013-14 school year. These data support the enrollment of economically disadvantaged students in a certified pre-K program in order to ensure kindergarten readiness.





Destination 2025 Monthly: April 2017
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Appendix A
Starting Quintiles of Kindergarten Students—Critical Focus Schools—Fall 2016

Alcy Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	10	24.4	5	11.9
Two	13	31.7	17	40.5
Three	11	26.8	5	11.9
Four	5	12.2	10	23.8
Top	2	4.9	5	11.9

N = 41 (Mathematics) N = 42 (Reading)

Alton Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	8	17.0	8	17.0
Two	16	34.0	16	34.0
Three	12	25.5	12	25.5
Four	7	14.9	5	10.6
Top	4	8.5	6	12.8

N = 47 (Mathematics) N = 47 (Reading)

Charjean Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	7	14.3	3	6.1
Two	18	36.7	20	40.8
Three	8	16.3	16	32.7
Four	13	26.5	7	14.3
Top	3	6.1	3	6.1

N = 49 (Mathematics) N = 49 (Reading)

Dunbar Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
One	10	18.9	5	9.4
Two	21	39.6	17	32.1
Three	8	15.1	11	20.8
Four	6	11.3	14	26.4
Five	8	15.1	6	11.3

N = 53 (Mathematics) N = 53 (Reading)



Destination 2025 Monthly: April 2017

Prepared by the Department of Research & Performance Management*

Goodlett Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	13	18.1	12	16.7
Two	22	30.6	24	33.3
Three	14	19.4	20	27.8
Four	15	20.8	7	9.7
Top	8	11.1	9	12.5

N = 72 (Mathematics) N = 72 (Reading)

Hamilton Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	8	16.3	3	6.0
Two	23	46.9	20	40.0
Three	10	20.4	13	26.0
Four	5	10.2	7	14.0
Top	3	6.1	7	14.0

N = 49 (Mathematics) N = 50 (Reading)

Hawkins Mill Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	8	13.3	2	3.3
Two	20	33.3	17	28.3
Three	16	26.7	22	36.7
Four	14	23.3	15	25.0
Top	2	3.3	4	6.7

N = 60 (Mathematics) N = 60 (Reading)

Knight Road Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	19	22.9	8	9.6
Two	25	30.1	31	37.3
Three	20	24.1	24	28.9
Four	14	16.9	12	14.5
Top	5	6.0	8	9.6

N = 83 (Mathematics) N = 83 (Reading)



Destination 2025 Monthly: April 2017

Prepared by the Department of Research & Performance Management*

Lucy Elementary	Mathematics		Reading	
Quintile	Number	Percentage	Number	Percentage
Bottom	5	13.5	1	2.7
Two	8	21.6	7	18.9
Three	8	21.6	11	29.7
Four	8	21.6	10	27.0
Top	8	21.6	8	21.6

N = 37 (Mathematics) N = 37 (Reading)

Magnolia Elementary	Mathematics		Reading	
Quintile	Number	Percentage	Number	Percentage
Bottom	7	14.3	2	4.0
Two	16	32.7	10	20.0
Three	14	28.6	18	36.0
Four	11	22.4	15	30.0
Top	1	2.0	5	10.0

N = 49 (Mathematics) N = 50 (Reading)

Manor Lake Elementary	Mathematics		Reading	
Quintile	Number	Percentage	Number	Percentage
Bottom	9	17.0	6	11.3
Two	21	39.6	16	30.2
Three	12	22.6	14	26.4
Four	7	13.2	12	22.6
Top	4	7.5	5	9.4

N = 53 (Mathematics) N = 53 (Reading)

Northaven Elementary-Middle	Mathematics		Reading	
Quintile	Number	Percentage	Number	Percentage
Bottom	11	23.9	4	8.7
Two	12	26.1	11	23.9
Three	13	28.3	12	26.1
Four	7	15.2	14	30.4
Top	3	6.5	5	10.9

N = 46 (Mathematics) N = 46 (Reading)



Destination 2025 Monthly: April 2017

Prepared by the Department of Research & Performance Management*

Scenic Hills Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	6	12.0	5	10.2
Two	14	28.0	9	18.4
Three	16	32.0	20	40.8
Four	9	18.0	13	26.5
Top	5	10.0	2	4.1

N = 50 (Mathematics) N = 49 (Reading)

Springdale Elementary	Mathematics		Reading	
	Number	Percentage	Number	Percentage
Bottom	12	25.5	5	10.6
Two	18	38.3	14	29.8
Three	9	19.1	17	36.2
Four	6	12.8	7	14.9
Top	2	4.3	4	8.5

N = 47 (Mathematics) N = 47 (Reading)