

21st Century Community Learning Center Evaluation – Cohort 8

Prepared for the Neighborhood Learning Alliance

October 30, 2017

Prepared by Megan Good & Linda Kuster
 Consulting & Training, LLC



Contents

- Evaluation Team 3
- Executive Summary..... 4
- Background 6
- Methodology..... 7
- Findings 10
 - Population Served..... 10
 - Academic Impact..... 12
 - Report Card Grades..... 12
 - PSSA Scores..... 15
 - DIBELS 17
 - Attendance..... 19
 - Teacher Perceptions 21
 - Engagement & Academic Outcomes by Site 22
 - Questions for Further Exploration 27

Evaluation Team

MG Consulting & Training, LLC is contracted to provide the Neighborhood Learning Alliance (NLA) with an independent evaluation for its 21st Century Community Learning Centers programs. Megan Good, principal of MG Consulting & Training, serves as the lead evaluator. Megan Good provides capacity-building technical assistance to organizations across a wide array of topics, including program design, program evaluation, workplace inclusion, and staff development. Megan previously served as a Manager of Analytics at the Allegheny County Department of Human Services, where she led project teams and supervised staff on a wide variety of analytic, evaluation, programmatic, and technology implementation projects.

MG Consulting & Training is a newly contracted entity for NLA's 21st CCLC programming, onboarding in September 2017. To maximize the utility of evaluation results, the tools and methods of the previous teams who evaluated Cohorts 2, 3, 4, 5, 6, 6A, were used in this quantitative evaluation for Cohort 8. Future evaluations will include more qualitative activities, such as program observation and process evaluation.

Executive Summary

The Neighborhood Learning Alliance (NLA) partnered with Pittsburgh Public Schools to operate Little Learning Warriors, an after-school program that is made possible through a 21st Century Community Learning Centers (CCLC) grant. Little Learning Warriors served 295 students in 2016-17 who were most in need of support in reading, math, and science in seven schools and one community center across Pittsburgh. This report describes the population served and their short-term academic and behavioral outcomes.

Performance Targets

Students demonstrated progress on all academic and behavioral indicators, but targets for established performance measures were met for only 5 of the 15 indicators – one related to academic gains, one related to school attendance, and three related to behavioral changes. The full list of indicators and actual performance levels benchmarked against the targets is provided below in Table 1.

Additional Findings

- Among regularly participating students, increased levels of program participation did not impact the likelihood of grades improving; students participating for 60 or more days did improve PSSA scores more than their peers, particularly in reading.
- Program participation seems to have a stronger influence on academic achievement for the lowest performing students (the lower the grade in the fall, the more likely they were to improve).
- Students regularly participating in programming made the greatest gains in reading, as demonstrated across changes in grades, PSSAs and DIBELS scores.
- Math instruction is a potential area for program growth: students have very low PSSA scores in math, earned lower grades in math than reading, and demonstrated lower levels of improvement in math compared to reading over the course of the year.
- Higher levels of program participation are not correlated with better school attendance. Program participants continue to experience high rates of absenteeism, which do vary by school. Students who participate in the program but attend infrequently are more likely to experience 20 or more absences during the school year.

Questions for Further Exploration

In addition to questions identified by program staff, potential items for further exploration include:

- **Program Populations:** Do students who participate in the summer have different strengths and needs than students who participate during the school year? Is striving to increase their engagement during the school year an opportunity to prioritize?
- **Program Dosage:** Why does program dosage beyond the first 30 days not seem to have an impact on student outcomes? Is the academic programming being implemented to fidelity? Is poor data quality impacting the ability to see progress in the data? Are we missing key indicators?
- **Program Impact on School Attendance:** Which aspects of the program model are designed to influence school attendance? Are they being implemented as intended? If so, is the established performance measure the most appropriate outcome measure for this program?
- **Teacher Surveys:** What are potential methods to increase the response rates in the next program year? How are teachers utilizing the “Did not need to improve” response on the survey, and could it be creating bias in the results?

Table 1. Student Outcomes vs. Performance Targets

Description of Measure	Actual	Target	Met Target
Performance Measure #1: Students regularly participating in the program (attending 30 or more days) will meet or exceed state and local academic achievement standards in reading and math.			
Participants will improve their mathematics grades.	39%	48.5%	No
Participants will improve their reading/English grades.	46%	48.5%	No
Participants will improve their science grades.	41%	50%	No
Grade 4-5 program participants will improve from not proficient to proficient or above in reading state PSSA assessments.	7%	45%	No
Grade 4-5 program participants will improve from not proficient to proficient or above in math state PSSA assessments.	2%	45%	No
Grade 4 students will score proficient on the science PSSA assessment.	33%	45%	No
Participants will make achievement level gains in reading based on pre/post DIBELS scores.	77%	70%	Yes
Performance Measure #2: Students regularly participating in the program (who needed to improve) will show improvement in performance measures of school attendance, classroom performance and/or reduced disciplinary referrals.			
Participants will have teacher-reported improvement in homework completion and class participation (of students needing to improve).	64%	90%	No
Participants will improve their school attendance/behavior by reducing their number of days absent from the prior school year to the current year (of students needing to improve).	70%	70%	Yes
Participants will improve their school attendance/behavior by reducing their number of days tardy from the prior school year to the current year (of students needing to improve).	62%	70%	No
Participants will improve their school attendance/behavior by reducing their number of behavior incidents from the prior school year to the current year (of students needing to improve).	84%	70%	Yes
Participants will improve their class participation.	80%	60%	Yes
Performance Measure #3: Participants in 21st Century program (who needed to improve) will demonstrate additional positive educational, social, and behavioral changes.			
Participants will have teacher-reported improvements in student behavior.	51%	75%	No
Participants will improve their volunteering in class.	39%	60%	No
Participants will improve their motivation to learn.	63%	60%	Yes

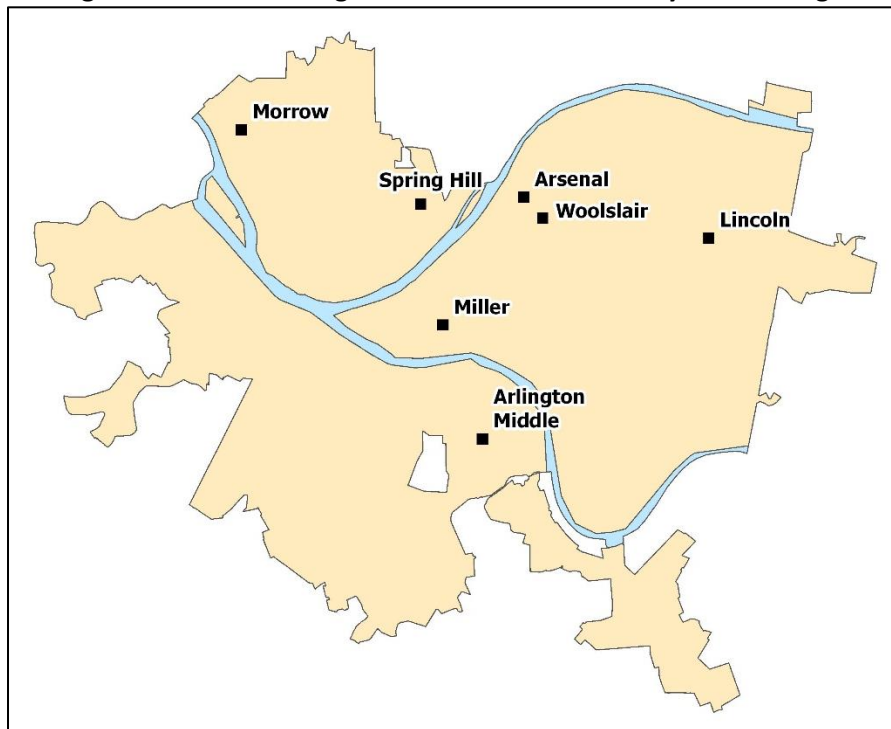
* See Methodology for detailed descriptions of which students are included and excluded from each measure.

Background

The federally funded 21st Century Community Learning Centers (CCLC) program supports academic enrichment opportunities during non-school hours for students living in areas of high-poverty with low-performing schools. CCLC recommends its grantees implement a range of activities to improve student performance, including reading, math, science after-school education activities and tutoring.

Wireless Neighborhoods, dba Neighborhood Learning Alliance (NLA), has partnered with Pittsburgh Public Schools (PPS) to implement several CCLC cohorts, including Cohort 8, known as the Little Learning Warriors program. Through analysis of school data and crime statistics, and discussions with PPS, community leaders, and families, NLA identified seven schools to operate the Little Learning Warriors after-school program: Arlington K-4, Arsenal K-5, Lincoln K-5, Spring Hill K-5, Morrow K-5, Miller K-5, and Woolslair K-5. Those schools are identified in the map below. NLA also operated a summer-only site at Bloomfield Garfield Community Activity Center.

Figure A. Little Learning Warrior Centers in the City of Pittsburgh



The Little Learning Warriors program specifically targets students who are not proficient in math, reading, and science. NLA worked with school leadership to identify the most academically struggling children based on assessments, grades, behavior, and attendance data. In the 2016-17 school year, Little Learning Warriors served 295 students who met these criteria.

The program's curriculum helps students master foundational math and reading skills, gives students opportunities to participate in STEM activities, and engages students in service learning by completing projects in their community. All the Little Learning Warrior Centers operate 12 hours of after-school programming per week, and most of that programming time is spent on academic activities. Program staff are provided with professional development to ensure high-quality programming.

Methodology

Findings in this report are based on analyses of program attendance data, student outcome data and teacher surveys. Each of the sections below describe common definitions or calculations utilized in the preparation and analysis of the findings detailed in the report.

Program Participation

Source: Little Learning Warriors Program Staff

Students' participation levels are determined by the number of days the student attended Little Learning Warriors during the fall, spring, and summer of the program year. The four categories of participation levels are fewer than 30 days, 30-59 days, 60-89 days, and 90 days or more. Students who attended 30 days or more are considered "regularly participating" students. Many of the performance measures are calculated using regularly participating students only, because students who participated less than 30 days did not receive adequate exposure to the program.

Report Card Grades

Source: Pittsburgh Public Schools

Report card grades are one method used to determine student outcomes. All grade levels, except for Kindergarten, use an A through F grading scale. Evaluators compared grades for Quarter 1 and Quarter 4 to determine changes in student outcomes from the beginning to the end of the school year. Students' report card outcomes are reported as Improved, No Change, Declined, or Did Not Need to Improve based upon a full letter grade change. Students earning an A in Quarter 1 are categorized as Did Not Need to Improve, because they could not improve their letter grade from Quarter 1 to Quarter 4. Students who only participated in the summer were excluded from this analysis since grade progress is examined from the beginning to the end of the 2016-17 school year, and summer-only students did not participate during that window of time.

PSSA Scores

Source: Pittsburgh Public Schools

PSSA scores are another method used to determine student outcomes. PSSA scores are categorized as Below Basic, Basic, Proficient, and Advanced. Evaluators compared PSSA scores for the current year and the prior year to determine changes in student outcomes. Students' PSSA score outcomes are reported as Improved, No Change, Declined, or Did Not Need to Improve. Students which earned a Proficient or Advanced score in the prior year were categorized as Did Not Need to Improve for the current year.

DIBELS¹

Program participants' literacy skills are measured using Dynamic Indicators of Basic Early Literacy Skills (DIBELS), which are administered at the beginning, middle, and end of the school year. Student scores are categorized into benchmark levels, which are based on the grade level and time of year the measure is administered. DIBEL Composite scores aggregate multiple DIBEL measures and provide the best overall estimate of the student's literacy skills. However, because only 34 students had pre and post Composite DIBEL scores, the evaluator used individual DIBEL measures which were most appropriate for each grade level. The measures used for each grade level is listed in Table 2.

¹ "DIBELS Next Benchmark Goals and Composite Score." Dynamic Measurement Group. 1 December 2010. <https://dibels.uoregon.edu/docs/DIBELSNextFormerBenchmarkGoals.pdf>.

DIBELS benchmark goals are empirically derived, criterion-referenced target scores that represent adequate reading progress. A benchmark goal indicates a level of skill where the student is likely to achieve the next DIBELS benchmark goal or reading outcome. The framework for the DIBELS levels are built around cut points for risk and benchmark goals. The cut points for risk indicate a level of skill below which the student is unlikely to achieve subsequent reading goals without receiving additional, targeted instructional support (At Risk students). Benchmark goals indicate a skill level at which students are on track to achieve the next benchmark with instruction from core classroom curriculum (Low Risk). Students scoring between these two points have Some Risk and may need strategic support.

The DIBELS Benchmark Assessment provides a rubric that associates the number correct with a benchmark status. At Risk is usually equated with being below grade level or below basic at the time of administration. Some Risk is usually equated with being below grade level or basic at the time of administration. Low Risk is usually equated with being at grade level or proficient at the time of administration.

The five benchmark levels below are an expanded version of DIBELS benchmark levels. Evaluators used this expanded set of benchmarks to identify student progress at a more detailed level. The At Risk and Some Risk end of year rubric was divided into numeric half to form low and high sub-categories. Low Risk was designated as Proficient (P) and not divided since the goal was to move low-performing students to being at grade level.

Progress measured by the DIBELS is based upon how students' scores relate to the Post measure scales. The Pre scales are diagnostic for the level of support students may need when starting the year, but changes between categories from Pre to Post do not adequately reflect student progress during the year. Therefore, Pre scores are compared to the Post scale in each grade to illustrate the progress the student made over time. Students who were Proficient on the Pre test are excluded from the performance measure assessing progress towards proficiency. This method is consistent with how the program has been evaluated over the past twelve years.

Table 2. DIBELS Benchmark Levels by Grade

Grade	Measure	At Risk		Some Risk		Low Risk	
		Low Below Basic (LBB)	High Below Basic (HBB)	Low Basic (LB)	High Basic (HB)	Proficient (P)	
Kindergarten	PSF	Pre	0-4	5-9	10-14	15-19	20+
		Post	0-12	13-24	25-32	33-39	40+
First	ORF	Pre	0-7	8-15	16-18	19-22	23+
		Post	0-15	16-31	32-39	40-46	47+
Second	ORF	Pre	0-18	19-36	37-44	45-51	52+
		Post	0-31	32-64	65-75	76-86	87+
Third	ORF	Pre	0-26	27-54	55-62	61-69	70+
		Post	0-39	40-79	80-89	90-99	100+
Fourth	ORF	Pre	0-34	35-69	70-79	80-89	90+
		Post	0-47	48-94	95-104	105-114	115+
Fifth	ORF	Pre	0-46	47-95	96-102	103-110	111+
		Post	0-51	52-104	105-117	118-129	130+

Attendance & Suspensions

Source: Pittsburgh Public Schools

Evaluators used school data to determine attendance and behavior outcomes, which were categorized as Improved, Declined, No Change, or Did Not Need to Improve. For school attendance, students who were absent 10 days or fewer in the prior school year were categorized as Did Not Need to Improve. For school tardiness, students who were tardy 10 days or fewer in the prior school year were categorized as Did Not Need to Improve. And for school discipline incidents, students who did not have any suspensions in the prior school year were categorized as Did Not Need to Improve.

Teacher Surveys

Source: Pittsburgh Public Schools Teachers

NLA provided teachers at Little Learning Warrior schools with a ten-question survey about their students' behavior. Some students had multiple teachers who completed surveys about them. In those cases, the evaluator selected the survey which indicated the student had the most room for improvement.

Data Limitations

Outcome data are not consistently available for the full cohort of 295 program participants. There are numerous contributing factors, such as students entering or exiting the school district, PSSA test subjects not being administered to every grade level, etc. To assist with the interpretation of the findings throughout the report, the total population for whom data are available and/or relevant for a given measure is provided to give context to the data.

Findings

Population Served

295 students were served across seven sites in the 2016-17 program year, and 81% (240) participated on a regular basis (30 or more program days). 77% (194) of students who attended the program in the summer or fall remained engaged in programming, participating in two or more of the summer, fall and spring terms. Remaining engaged during the following term was less common for students active in the summer (68%) than those who began in the fall (83%).

Demographics of the student population served in the 2016-17 program year include:

- 58% female
- 93% students of color: 82% of total were African American
- 83% eligible for free/reduced lunch
- 20% received special education services
- 7% had limited English proficiency (all served at Arsenal)

Students ranged from Kindergarteners to fifth graders at each site, with a majority of children in grades 1-3 (61%). Sites served 29 to 52 unique students over the course of the year, and served more students in the fall and spring than during the summer (Table 4); the three smaller sites (Morrow, Spring Hill, Woolslair) averaged 25 students in the fall and spring terms, and the four larger sites averaged 38. Six of the seven sites met and exceeded their targeted number of youth served. Spring Hill did not operate over the summer, which may have contributed to the smaller number of children served.

Table 3. Total Students Served by Grade by Center, 2016-17

Center	Grade level							Total	Target Number
	K	1	2	3	4	5	Unknown		
Arlington	7	12	8	14	4	4	0	49	35
Arsenal	1	14	11	12	9	4	1	52	45
Lincoln	6	5	11	10	7	6	1	46	45
Miller	7	7	6	10	7	6	2	45	25
Morrow	2	2	7	10	8	7	7	43	40
Spring Hill	6	6	8	6	3	0	0	29	35
Woolslair	3	6	6	8	4	4	0	31	25
Total	32	52	57	70	42	31	11	295	250

Five of the seven sites² operated over the summer, and on average, two of every three students who participated in the program were active over the course of at least two terms (e.g. summer and fall). Most students who attended the program over more than one term also attended a higher number of days (Table 5). However, the amount and duration of student engagement in programming differed by site and student age.

² The Bloomfield Garfield Community Center hosted a summer site for students from Arsenal and Woolslair because the school buildings were not available in the summer. There were seven sites during the school year, and the summer students' data are attributed to their school year placement, not Bloomfield Garfield.

Table 4. Number of Total Student Participants, by Site and Term, 2016-17

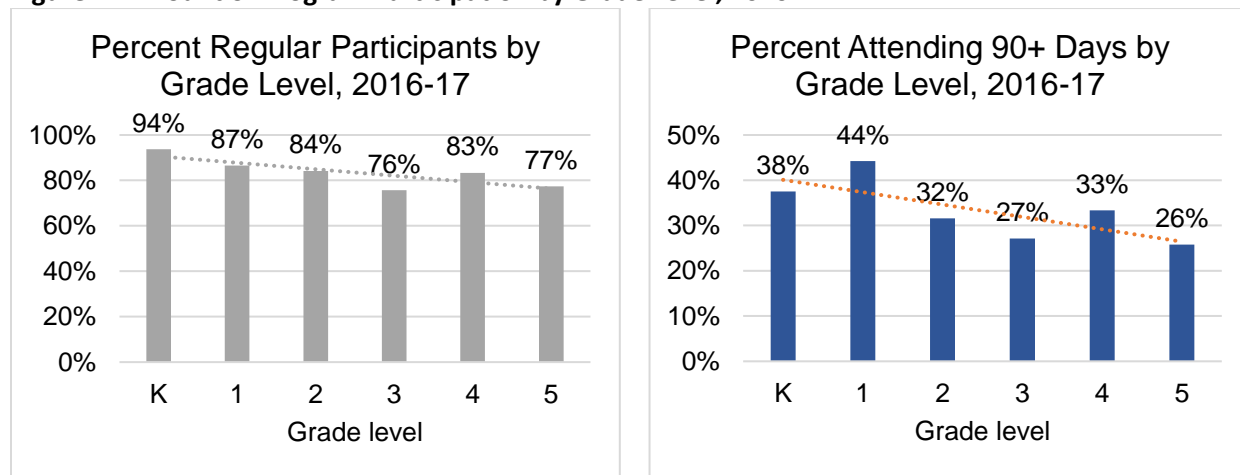
Site	Participants Each Term			Total Unique Students	Students Engaged in 2 or More Terms	
	Summer	Fall	Spring		Number	Percent
Arlington		44	39	49	34	69%
Arsenal	27	38	45	52	38	73%
Lincoln	16	36	36	46	29	63%
Miller	24	32	30	45	31	69%
Morrow	17	21	27	43	17	40%
Spring Hill		21	27	29	19	66%
Woolslair	12	27	25	31	26	84%
Total	96	219	229	295	194	66%

Table 5. Total Program Days Attended by Terms Attended, 2016-17

Program Days Attended	Length of Program Involvement			Total
	1 term	2 terms	3 terms	
Fewer than 30 days	45	10		55
30-59 days	56	32	1	89
60-89 days		52	5	57
90+ days		44	50	94
Total	101	138	56	295

Younger students participated in the program more regularly than older students, with 3rd and 5th graders attending least consistently.

Figure B. Amount of Program Participation by Grade Level, 2016-17



Academic Impact

The Little Learning Warriors program includes focused attention on math and reading fundamentals, STEM activities, soft skills development, and service learning. Serving some of the most at-risk children in the Pittsburgh Public Schools, the program is designed for students scoring at the Below Basic or Basic level of the DIBELS or PSSAs and/or students experiencing chronic absenteeism. Program goals include: developing students' skills so they are reading on grade level; mastering fundamental math skills; attending at least 90% of school days; demonstrating an increased interest in STEM; and, practicing soft skills that are vital to their future success.

Program participants did improve test scores and grades over the course of the 2016-17 program year, but the program did not meet any of the seven targets set for improvements in academic performance. Students made the greatest gains in grade level improvements, and struggled to bring up their PSSA test scores to the Proficient level. The targets and actual performance are displayed in Table 6.

Table 6. Academic Progress of Regularly Attending Program Participants vs. Performance Targets

Description of Measure	Actual	Target	Eligible Number of Students*
Participants will improve their mathematics grades.	39%	48.5%	145
Participants will improve their reading/English grades.	46%	48.5%	182
Participants will improve their science grades.	41%	50%	75
Grade 4-5 program participants will improve from not proficient to proficient or above in reading state PSSA assessments.	7%	45%	45
Grade 4-5 program participants will improve from not proficient to proficient or above in math state PSSA assessments.	2%	45%	42
Grade 4 students will score proficient on the science PSSA assessment.	33%	45%	33
Participants will make achievement level gains in reading based on pre/post DIBELS scores.	77%	70%	82

* See Methodology for detailed descriptions of which students are included and excluded from each measure.

This section explores the academic progress of students more deeply, examining performance dynamics and identifying opportunities to explore for improvement.

Report Card Grades

At least partial report card grades were provided for 209 (91%) of the 229 students who regularly participated in the program during the fall and/or spring terms. Students who only participated in the summer are excluded from this analysis since grade progress is examined from the beginning to the end of the 2016-17 school year, and summer-only students did not participate during that window of time.

While the program performance targets were not met, a majority of students did achieve gains in academic performance during the year. Academic improvement for report card grades is measured by letter grade improvement. 69% of students with room to improve their grades did so in at least one

subject: 39% improved in math, 46% in reading, and 41% in science. Across each subject, twice as many students improved their grades compared to those who experienced a decline (Figure C).

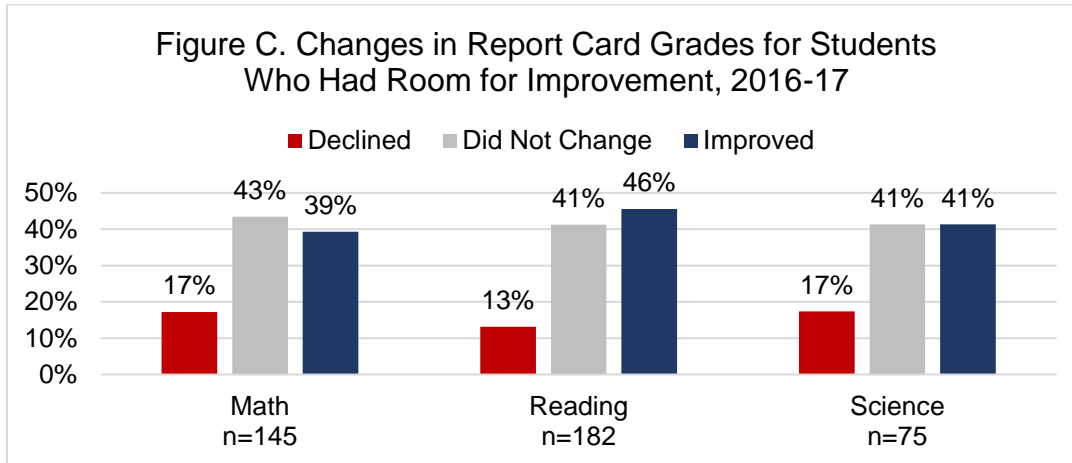


Table 7 lists the information displayed in Figure C, and adds the fourth quarter grade outcomes for students who started the year with an A. Almost two-thirds of students entering the year with an A in each subject maintained that grade over the course of the year.

Table 7. Letter Grades Changes, by Subject and Grade in the First Quarter, 2016-17

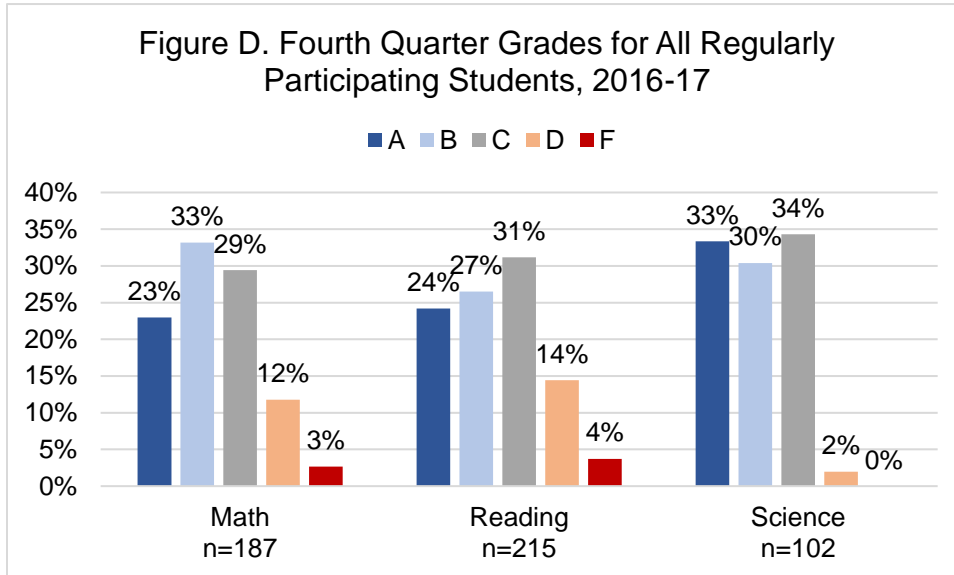
Subject	Grade in First Quarter (Q1)	Total Students	Change in Grade		
			Declined	Did Not Change	Improved
Math	A in Q1	42	40%	60%	
	Room for improvement	145	17%	43%	39%
Reading	A in Q1	33	36%	64%	
	Room for improvement	182	13%	41%	46%
Science	A in Q1	20	35%	65%	
	Room for improvement	75	17%	41%	41%

Among students with room to improve (did not have an A in the fall), the greatest gains were made by the students with the lowest grades (Table 8). About two-thirds of student grades that were Ds and Fs in the first quarter were improved by the end of the year.

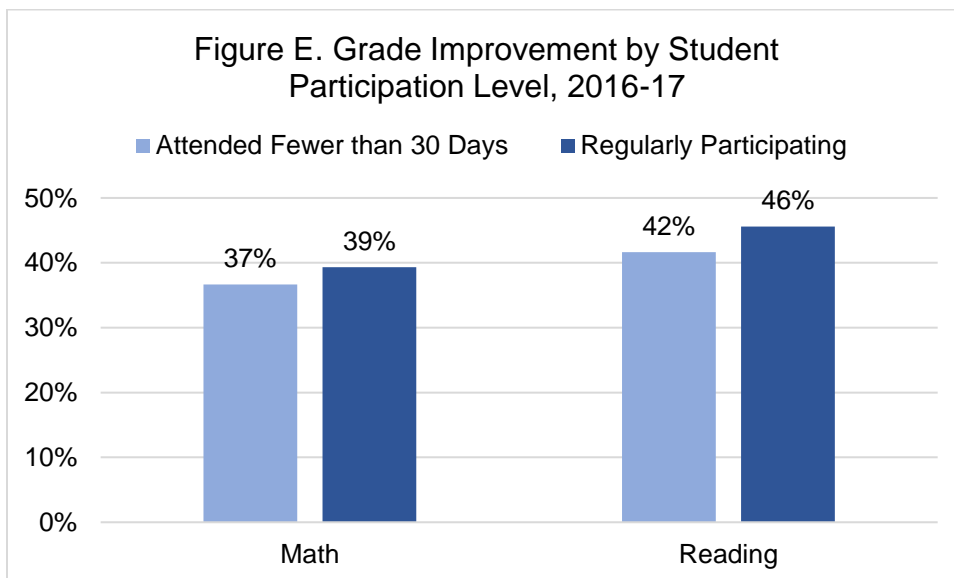
Table 8. Grade Level Improvements, by Grade in the First Quarter, 2016-17

Grade in Q1	Math		Reading		Science	
	Total Students	Percent Improved	Total Students	Percent Improved	Total Students	Percent Improved
F	11	73%	14	71%	0	NA
D	27	67%	39	54%	2	100%
C	46	37%	71	39%	33	55%
B	61	23%	58	41%	40	28%

Figure D displays the report card grades of regularly participating students at the end of the program year. Student grades are strongest in science, followed by math, and then reading. Of all program participants, 3% were failing math, and 4% failing reading. This compares to 6% failing math and reading in the fall. As a whole, this cohort of at-risk students improved rather than falling further behind.



Students who attended the program but did not participate regularly may serve as a control group for assessing the impact of programming on student progress. They had a very small ‘dosage’ of programming, so their experience is a proxy for how students in the program may have progressed without the intervention. Figure E displays the percentage of students in each group who improved their letter grade in math and reading (science is excluded due to insufficient data). Regularly participating students achieved letter grade improvement at slightly higher rates than their peers.



In Tables 9 and 10, student achievement is crossed with program participation to assess how much of an impact the dosage of programming influenced outcomes for students. The group with the highest rates

of improvement are those who attended the program 30-59 days, not the students who attended most frequently. The same holds true if participation is measured by how many terms, or how long, students participated. Beyond the 30 day dosage, higher rates of participation are not correlated with higher levels of academic growth (measured by grade level increases).

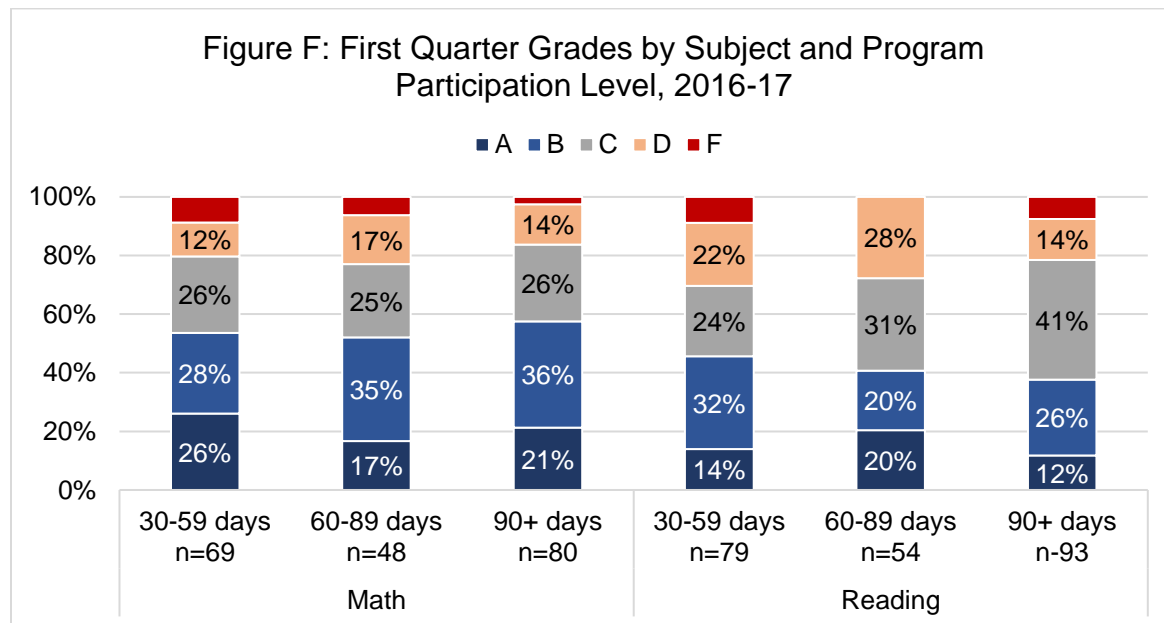
Table 9. Percentage of Students Improving Performance by Days in Program, 2016-17

	30-59 days	60-89 days	90+ days
Math	42%	36%	40%
Reading	50%	43%	44%
Science	55%	23%	45%

Table 10. Percentage of Students Improving Performance by Length of Program Engagement, 2016-17

	1 term	2 terms	3 terms
Math	39%	41%	33%
Reading	45%	45%	44%
Science	42%	36%	42%

One question this raises is whether students who attend more frequently started with higher grades and had less room to improve. However, a comparison of math and reading grades in the fall (Figure F) does not reveal any substantial differences between the groups of students, particularly in math. There are some differences in reading grades, with the group of students attending less frequently including individuals on each end of the grade spectrum, whereas those who attended most frequently had many students in the mid-range of performance (41% had a C).

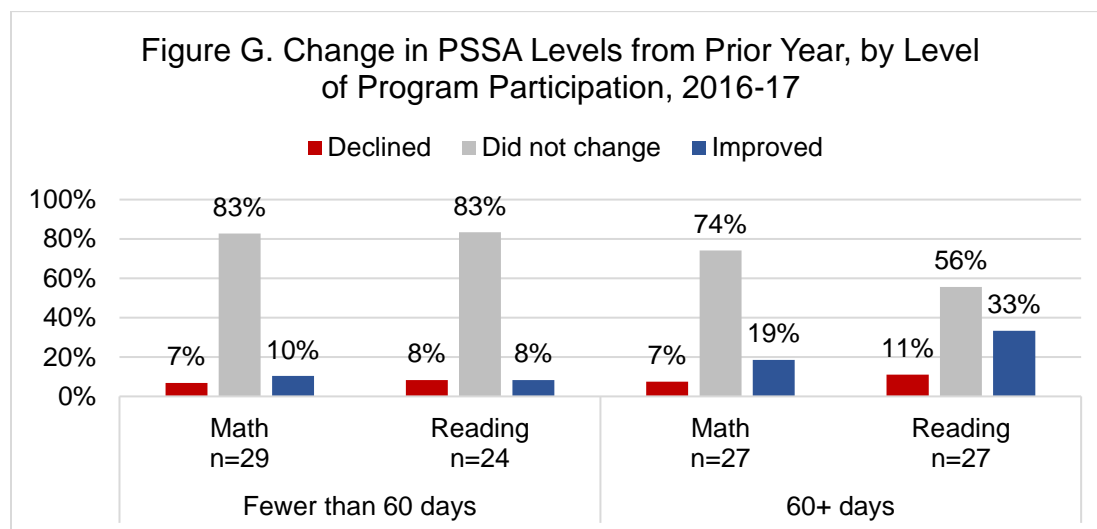


PSSA Scores

As indicated previously in Table 6, very few students who scored Basic or Below Basic on the PSSAs in the prior year scored in the Proficient or Advanced ranges during the program year (2% in math, 7% in

reading). However, program participants did make some gains, and 30% of all tested, regularly attending students scored proficient in at least one subject of the PSSA; 33% of Grade 4 students scored proficient on the science PSSA.

Figure G displays changes to PSSA scores for participants, grouped by subject and days attending the program. Due to small sample sizes, participants are grouped by those attending fewer than 60 days or more than 60 days, rather than by whether they are regular participants. As indicated by the blue bars on the right of each cluster, students participating for 60 days or more did improve their scores at higher levels, with the greatest gains made in reading – 1 in 3 students participating for 60 days or more who were not Proficient the prior year moved up a level to Basic or Proficient.



Tables 11 and 12 cross students' scores from 2016 with 2017 to show how PSSA test performance changed from the prior year. The cells highlighted in grey indicate students who scored within the same category each year. Blue and red colored cells indicate movement in positive and negative directions, respectively. This broader view of performance (including those who were Proficient in 2016) indicates that, while some students made positive gains, as a whole group, performance was stagnant. Just as many students moved down a level as the number who moved up a level, in both math and reading.³

Table 11. Math PSSA Score Changes from 2016 to 2017, Grades 4-5

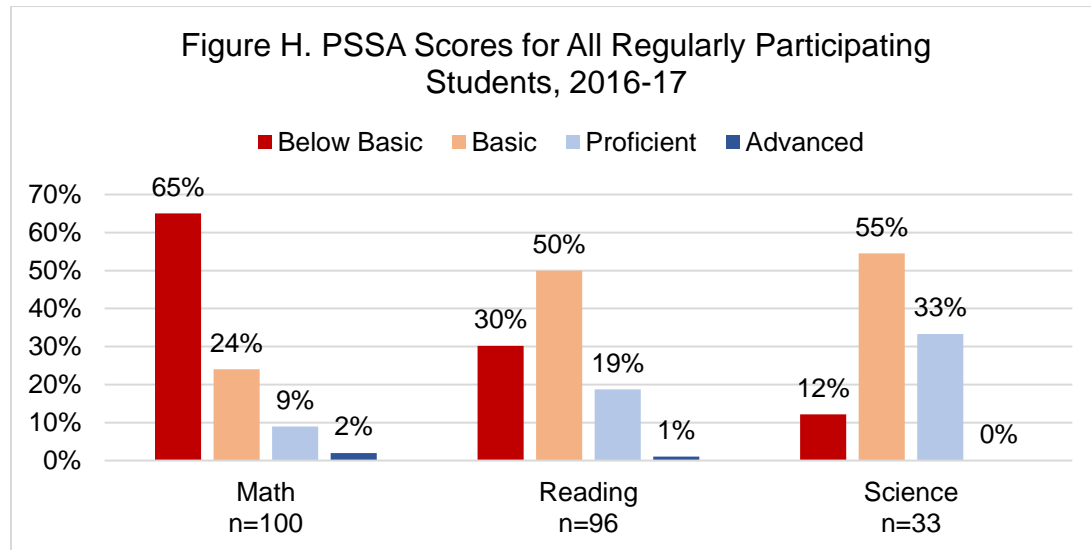
2016 Scores	2017 Scores				Total
	Below Basic	Basic	Proficient	Advanced	
Below Basic	29	5	0	0	34
Basic	3	7	1	0	11
Proficient	1	3	4	0	8
Advanced	0	0	0	0	0
Total	33	15	5	0	54

³ Progress in Science scores are not available since students do not take that portion of the exam two years in a row.

Table 12. Reading PSSA Score Changes from 2016 to 2017, Grades 4-5

2016 Scores	2017 Scores				Total
	Below Basic	Basic	Proficient	Advanced	
Below Basic	13	7	0	0	20
Basic	5	14	3	0	22
Proficient	0	5	6	0	11
Advanced	0	0	0	0	0
Total	18	26	9	0	53

Figure H displays all standardized test scores for regularly participating students in 2016-17. Scores are lowest in math and highest in science. Two-thirds of students scored Below Basic on math, and another 24% scored at the Basic level. Examining the strategies utilized to build students’ mathematical skills and comprehension may be an opportunity for program growth. It is both an area of need for students and the subject in which students see the fewest gains from one year to the next (in both PSSA and grade level changes).



DIBELS

Students literacy levels are measured through DIBELS activities at the beginning, middle, and end of the school year. 101 participants had at least two DIBELS scores with which to evaluate growth, and 92 of those students were regular participants. Pre scores are compared to the Post score scale in each grade to illustrate the progress the student made over time. The crosstab of these changes are displayed in Table 13. 77% of students made enough gains during the year that their score elevated by at least one level.

Table 13. Progress of Regularly Participating Students with Pre and Post DIBEL Scores, 2016-17

Pre Scores	Post Scores					Total	Percent Improved
	Well Below Benchmark		Below Benchmark		At or Above Benchmark		
	LBB	HBB	LB	HB	Proficient		
Low Below Basic (LBB)	6	11	4		3	24	75%
High Below Basic (HBB)		13	9	15	15	52	75%
Low Basic (LB)					4	4	100%
High Basic (HB)					2	2	100%
Proficient					10	10	NA
Total	6	24	13	15	34	92	77%

Table 14 shows the number of students whose pre and post scores were above and below key DIBELS benchmarks. 61% of students with scores below the risk cut point made enough progress to move past the risk cut point, into the moderate risk category (37%) or above the benchmark (24%). Overall, 37% of regularly participating students scored above the DIBELS benchmark (Proficient) in their Post test, indicating they are on track to continue to achieve positive reading outcomes.

Table 14. DIBEL Changes Past Key Benchmarks for Regularly Participating Students, 2016-17

Grade	Below Risk Cut Point		Above Benchmark		Total Students
	Pre	Post	Pre	Post	
K	4	0	4	7	8
1	21	7	1	5	22
2	19	7	1	10	22
3	20	9	2	6	22
4	8	4	1	2	10
5	4	3	1	4	8
Total	76	30	10	34	92

On average, students who attended more than 90 days of the program increased their DIBEL score by 26 points from the beginning until the end of the year. Students who attended 30 to 89 days increased their DIBELS score by more points than those attending more than 90 days across each Pre benchmark category. This indicates there may not be a relationship between attending more days of programming and higher DIBELS scores.

Table 15. Average Point Increase for Students by Attendance and Benchmark Level, 2016-17

Benchmark Level at Beginning of Year	Attended 30 to 89 days (n=37)	Attended more than 90 days (n=55)
Below Basic	36	26
Basic	29	28
Proficient	28	23
Average Point Increase	31	26

Attendance

School attendance is critical to student achievement and engagement. Since the program targets at-risk students, most students regularly participating in the program experience high rates of out-of-school time. 48% of students experienced ten or more absences and 34% had ten or more tardies in the prior school year.

The results are mixed for whether or not attendance improved for program participants. The program did meet one of its target performance indicators related to attendance: 70% of regular program participants who needed to improve their attendance from the prior year had fewer absences during the 2016-17 program year. However, 56% of those students still had ten or more absences, and 67% of students who had fewer than ten absences in the prior year saw the number of school days missed during the program year increase.

Table 16. Attendance and Behavior Progress of Regularly Attending Program Participants vs. Performance Targets

Description of Measure	Actual	Target	Eligible Number of Students *
Participants will improve their school attendance/behavior by reducing their number of days absent from the prior school year to the current year (of students needing to improve).	70%	70%	91
Participants will improve their school attendance/behavior by reducing their number of days tardy from the prior school year to the current year (of students needing to improve).	62%	70%	58
Participants will improve their school attendance/behavior by reducing their number of behavior incidents from the prior school year to the current year (of students needing to improve).	84%	70%	19

Table 17 displays the breakdown of how many students had ten or more absences during the program year, based on whether they had ten or more in the prior year. 69% of those with ten or more absences in the prior year continued to miss a high volume of school days, and 30% of those who did not miss ten or more days in the prior year did so during the program year.

Table 17. Absences During Program Year by Whether Student Needed to Improve from Prior Year (Regular Program Participants), 2016-17

Absences in Program Year	10+ Absences in Prior Year?	
	No n=99	Yes n=91
Less than 10	70%	31%
10 or more	30%	69%
Total	100%	100%

Regardless of changes since the prior year, about half of regular attendees were absent from school ten or more days during the program year.

Table 18. Absences for Regular Attendees, 2016-17

	Count	Percentage
Absent fewer than 10 days	112	47%
Absent 10 or more days	114	48%
No data	14	6%
Total	240	100%

Overall, there is no correlation between the number of days of program participation and the number of days absent from schools. However, one in three students who attended the program but were not regular participants missed 20 or more days of school. If addressing school attendance is a priority of the program, this indicates an intervention opportunity – students who do not regularly attend the program are more likely to be missing a high volume of school days as well.

Table 19. Absences During Program Year by Regular Student Participant Status, 2016-17

Absences During Program Year	Regular Participant?		Total n=270
	No n=44	Yes n=226	
0 to 3 days	14%	18%	17%
4 to 6 days	7%	15%	14%
7 to 9 days	18%	16%	17%
10 to 14 days	18%	19%	19%
15 to 19 days	9%	13%	13%
20 or more days	34%	18%	21%
Total	100%	100%	100%

In addition to missing full days, tardiness negatively impacts a child’s educational experience. Program participants experience high rates of tardiness slightly less frequently than high rates of absences. In the 2016-17 school year, 44% of regular participants were tardy for school ten or more times.

Table 20. Percentage of Regular Attendees Tardy 10 or More Times, 2016-17

	Count	Percentage
Tardy fewer than 10 days	115	56%
Tardy 10 or more days	89	44%
Total	204	100%

62% of students who were late to school ten or more times during the previous year experienced fewer tardies during the program year, falling shy of the target of 70%. About the same number of overall students were late to school more than ten times during the program year compared to the prior year. About two-thirds of students remained in the same category from the prior year, whereas about one-third decreased or increased the number of times they were tardy for school (above or below the threshold).

Table 21. Tardiness in 2016-17 by Tardiness Level in Prior School Year

	10 or More Tardies in Prior Year?	
	No	Yes
Tardies in 16/17	n=114	n=58
Fewer than 10 days	68%	36%
10 or more days	32%	64%
Total	100%	100%

A bright spot for program participants was the reduction in the number of school days missed due to suspensions. The program exceeded its target of 70% of students with suspensions in the prior year experiencing fewer during the program year, reaching 84%. Additionally, the number of school days missed by program participants due to suspensions dropped from 61 to 36, (41%).

Although some students who did not have a suspension in the prior year did have one during the current program year, proportionally, fewer students still missed school days due to suspensions compared to the prior year (8% vs. 10%).

Table 22. Percentage of Regular Attendees Experiencing Suspensions, 2016-17

	Prior Year n=198	Program Year n=226
Any suspensions	10%	8%
3+ days suspended	5%	2%

Teacher Perceptions

Teacher surveys were distributed to measure students' behavioral changes in the classroom. Surveys were returned for 125 of the total 295 students, 116 of which were for students who regularly participated. Teachers completed the surveys on paper, and NLA staff entered responses into a spreadsheet. Table 23 details the number of surveys returned from each school, and the response rate (percent of students who had a completed survey about their performance).

Table 23. Teacher Survey Response Rates, by School, 2016-17

School	Number Completed	Percent Returned
Arlington	24	49%
Arsenal	31	65%
Lincoln	14	33%
Miller	17	40%
Morrow	13	41%
Spring Hill	17	63%
Woolslair	9	30%
Total	125	46%

Of the five performance measures established for the program related to teacher-reported improvements, two targets were met – the percentage of students improving their class participation and their motivation to learn. These each indicate a heightened level of engagement in the classroom.

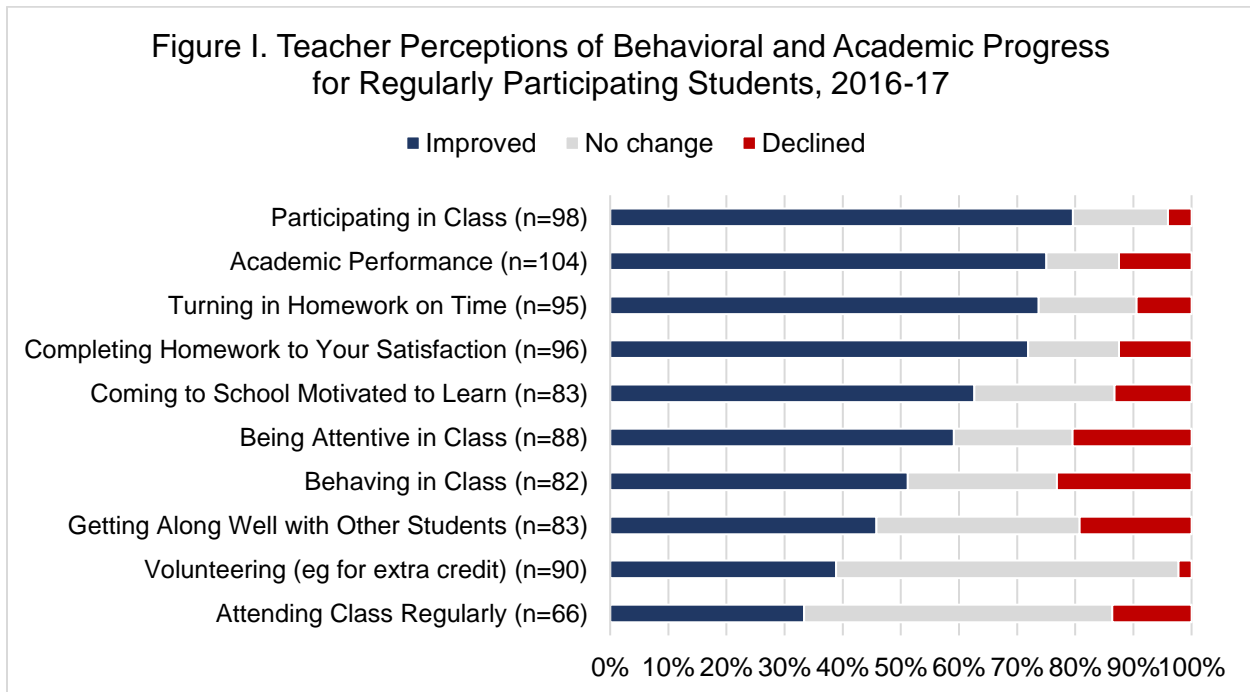
Table 24. Teacher-Reported Progress of Regularly Attending Program Participants vs. Performance Targets, for Students Needing to Improve

Description of Measure	Actual	Target	Eligible Number of Students*
Participants will have teacher-reported improvement in homework completion and class participation.	64%	90%	102
Participants will have teacher-reported improvements in student behavior.	51%	75%	82
Participants will improve their class participation.	80%	60%	98
Participants will improve their volunteering in class.	39%	60%	90
Participants will improve their motivation to learn.	63%	60%	83

Responses for all survey items are detailed in Figure I. Teachers reported some form of positive change for 94% of students who regularly participated in the program. The top 3 areas of improvement included:

- Participating in Class – 80% improved
- Academic Performance – 75% improved
- Turning in Homework on Time – 74% improved

Class attendance was the area with the least amount of positive change, which is also reflected in the attendance records.



Engagement & Academic Outcomes by Site

This section highlights a few of the engagement and academic analyses presented above, disaggregating the students by their Little Learning Warriors site. The number of participants with data on each measure are not large, so data should be interpreted with caution. However, understanding the

differing dynamics by location is useful for identifying both model sites to observe what is working well, and to identify sites' areas for development.

Figure J displays the percentage of students at each site who attended the program regularly (30 days or more) and most intensely (90 days or more). The chart is sorted such that sites with the highest rates of regular attendees begin from the left. An interesting trend is that sites with the highest rates of regular attendees (Spring Hill, Lincoln) are not the same as those with the highest percentages of students who attend 90 or more days (Miller, Woolslair).

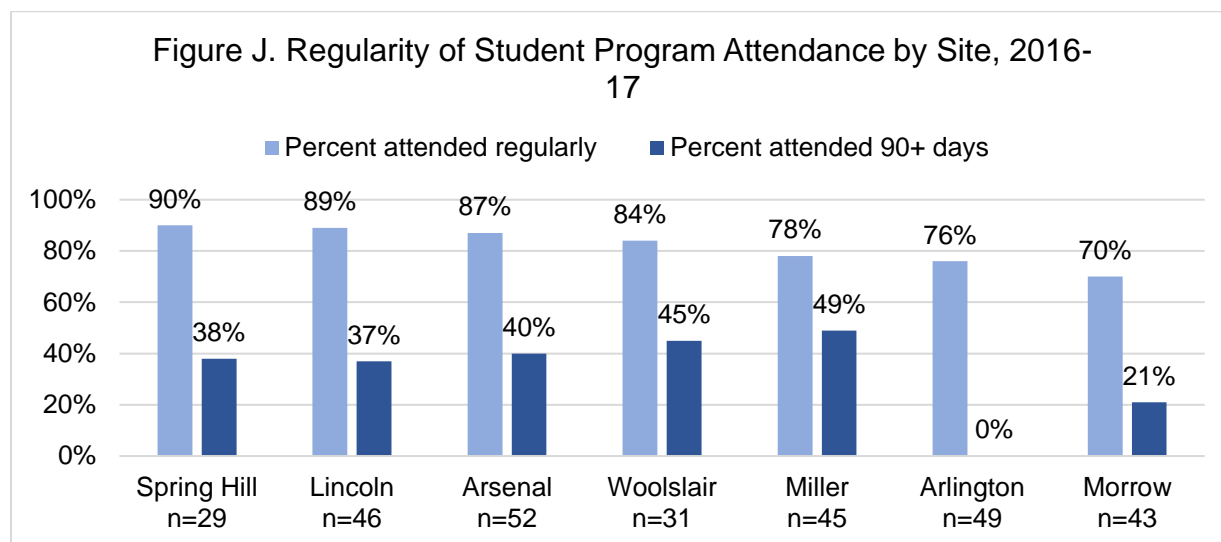
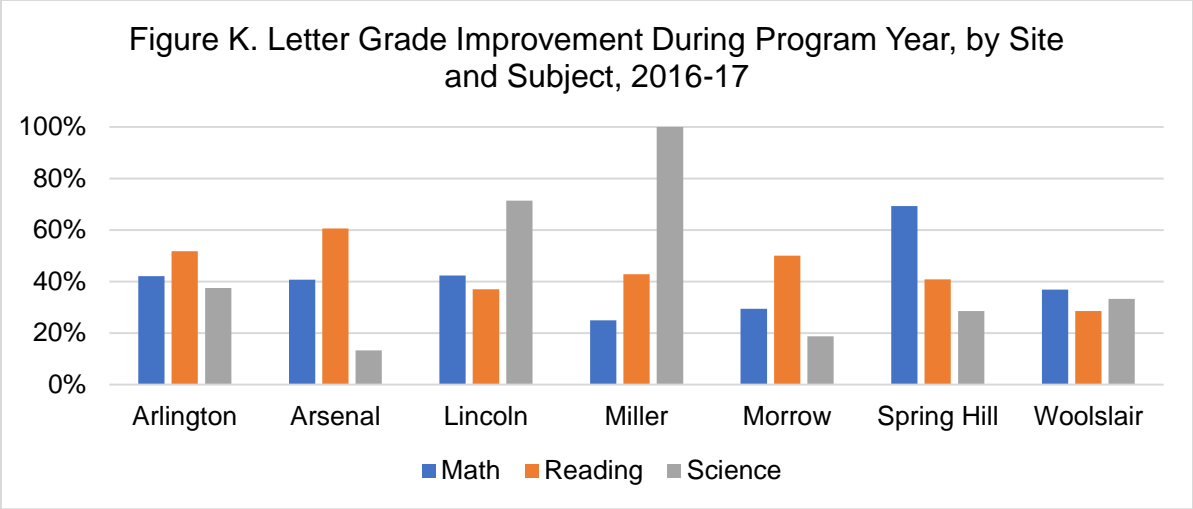


Table 25, listed alphabetically, provides additional data about the level of engagement students have at each site.

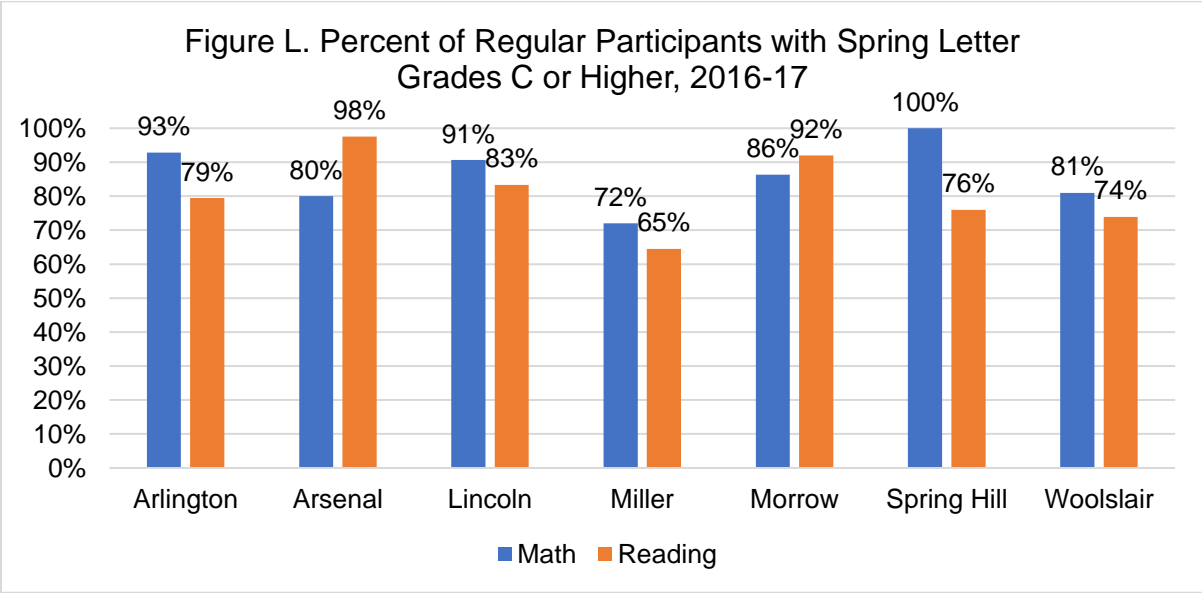
Table 25. Attendance Levels by CCLC Site, 2016-17

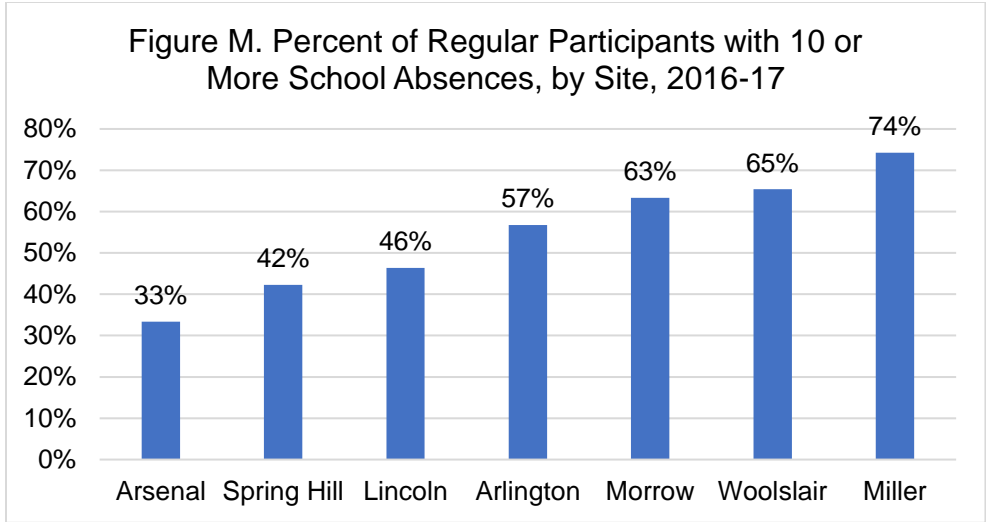
Center	Percentage Attending Regularly	Attendance Category by Site			
		Fewer than 30 days	30-59 days	60-89 days	90+ days
Arlington	76%	25%	47%	29%	0%
Arsenal	87%	14%	27%	19%	40%
Lincoln	89%	11%	33%	20%	37%
Miller	78%	22%	20%	9%	49%
Morrow	70%	30%	35%	14%	21%
Spring Hill	90%	10%	28%	24%	38%
Woolslair	84%	16%	16%	23%	45%
Total	81%	19%	30%	19%	32%

Figure K displays the percentage of students achieving grade level gains in each subject area from the beginning to the end of the program year, grouped by site. Each site has different strengths and weaknesses, with Miller and Lincoln standing out in science, Spring Hill in math, and Arsenal in reading grade improvements.

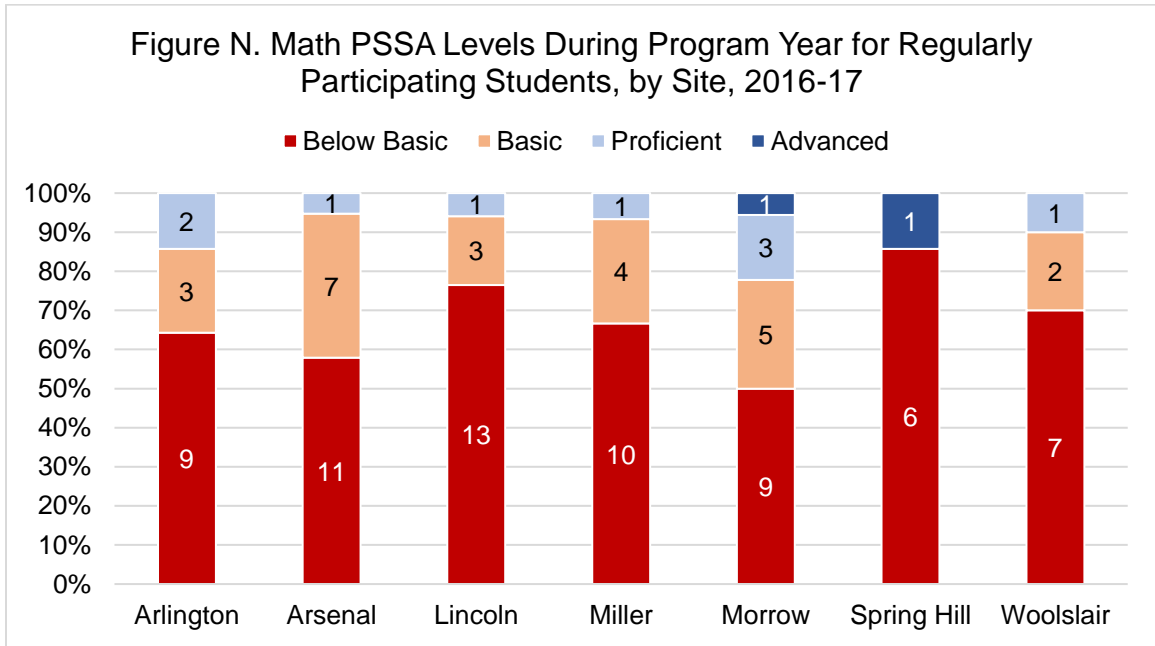


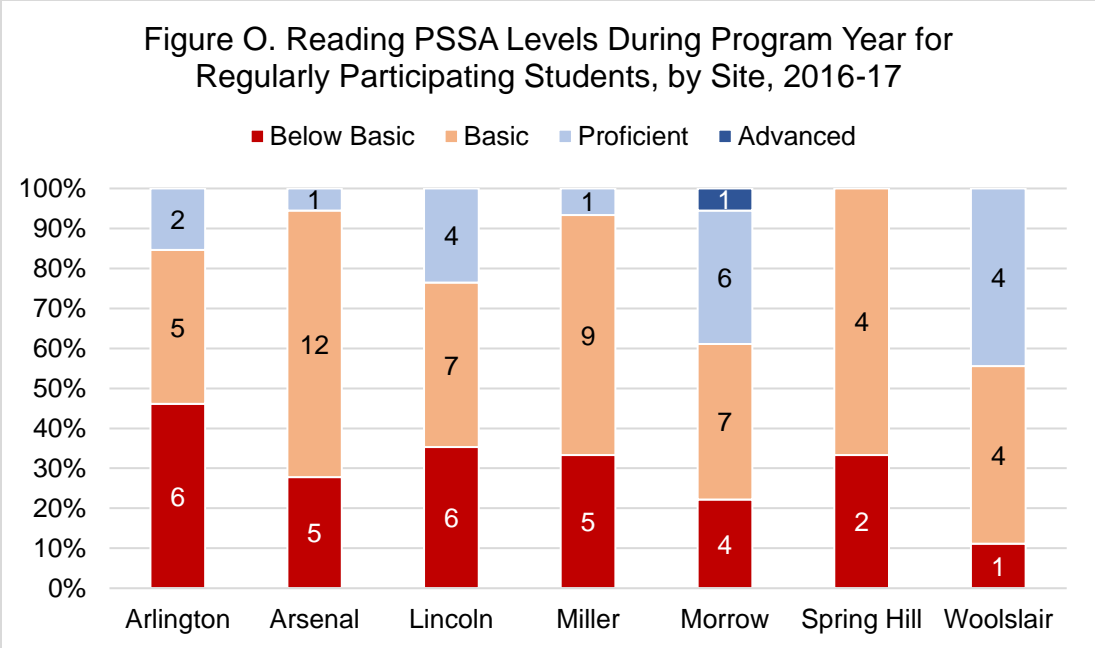
End of year grades for regularly attending students varied by site. Figure L displays the percentage of students with a C or higher in Math and Reading at each school. Although many of the student gains identified in the outcome analyses above pointed to strides made in reading, lower percentages of students have strong grades in reading than math in five of the seven schools. The grades of student participants at Miller and Woolslair are notably lower than the other schools. Although these program sites have high rates of student engagement, students attending these schools experience the highest rates of absenteeism (Figure M), which may be impacting their classroom outcomes.





The final two Figures (N and O) chart the program year PSSA results for regularly participating students at each school. Proportions vary slightly by school, but the small numbers of children make it challenging to draw meaning from the data. As a big picture, the visuals highlight the ongoing academic challenges students involved in the program face. Students are faring better in reading than math, where over 60 percent of students scored Below Basic.





In summary, observations about the strengths and areas for development of each site include:

- Arlington** is one of the larger sites (n=49) even though it did not operate over the summer. While Arlington is above average for the percentage of students engaged over time, they have the lowest percentage of students attending 60 or more days. Student progress in math is one of Arlington’s relative strengths, with 42% of students improving by a letter grade, and 93% ending the year with a C or higher.
- Arsenal** had the largest program, an above-average level of students who attend regularly (87%), and who attended the program for at least 90 days (40%). Arsenal’s academic strength is reading development, with 61% of students improving by a grade level during the year, and 98% ending the year with a C or higher.
- Lincoln** has the second highest rate of students regularly attending programming (89%), and its students made strong gains in science (71% improving). Student progress in reading and math is on par with the average across other sites.
- Miller** had the highest percentage of students receiving 90 or more days of instruction, at 49%. However, students at this school have the highest rates of absenteeism (74% missing 10 or more days), and the lowest grades. The students’ progress in science is a bright spot – 9 of the 9 students (with science grades) improved their letter grade over the course of the year.
- Morrow** consistently has lower levels of student engagement in programming, with the lowest percentages of students who attend regularly, and their students also experience school absences at high rates. Their students’ PSSA reading scores and grade level improvements are relatively strong compared to other sites.
- Spring Hill** served the smallest number of unique children, and they had the highest percentage of students who regularly attended programming (90%). Students at this site had the strongest gains in their math grades (69% improved), and 100% of students had a C or above in math at the end of the year.

- **Woolslair** served a small number of total students, but had the highest percentage (84%) who stayed with the program over the course of the year, and an above-average percentage of students who attended the program at least 90 days. Yet, a high percentage of regularly participating students (65%) missed more than ten days of school during the year; this may contribute to the more moderate academic gains made by students at this school.

Questions for Further Exploration

The analyses presented in this report generate more questions than they answer. This evaluation will be reviewed with NLA program staff, and used to develop an evaluation plan for the coming year. In addition to questions identified by the program team, the evaluation team proposes the following questions as potential items for further exploration:

- **Program Populations:** Do students who participate in the summer have different strengths and needs than students who participate during the school year? Are lower rates of ongoing engagement for children active in the summer appropriate, or is increasing their engagement an opportunity to prioritize?
- **Program Dosage:** Why does program dosage beyond the first 30 days not seem to have an impact on student outcomes? Is the academic programming being implemented to fidelity? Is poor data quality impacting the ability to see progress in the data? Are there important benefits to students that are not being captured? Do we need a stronger control group to see the effects of program involvement?
- **Math:** Why are students making greater gains in their reading skills than math? Are some sites having more success with math and able to share insights with program partners?
- **Program Impact on School Attendance:** Which aspects of the program model are designed to influence school attendance? Are they being implemented as intended? If so, is the established performance measure the most appropriate outcome measure for this program?
- **Teacher Surveys:** What are potential methods to increase the response rates in the next program year? How are teachers utilizing the “Did not need to improve” response on the survey? Are they consistently using it, or are some teachers ranking all students in each category, potentially creating bias in the data if high-performers are rated as “no change”?
 - If they are using it as intended, why are young students perceived by their teachers as needing to improve their motivation to learn at such high rates? Young children are naturally curious, but their ability to engage may be influenced by other factors. How might this perception be impacting the child’s experience and academic success?