



PROJECT LIFT: YEAR FOUR STUDENT OUTCOMES MEMO

Prepared by **Research for Action** • January 2017

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Project LIFT: Year Four Student Outcomes Memo: Executive Summary

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Introduction

Research for Action (RFA) is completing its fourth year of an external evaluation of the Project Leadership and Investment for Transformation (LIFT) Initiative in the Charlotte-Mecklenburg Schools (CMS). Project LIFT is a multiyear district turnaround effort created through a public-private partnership between CMS and local philanthropic and business communities. Originally planned for five years, LIFT implementation was recently extended to six years, concluding in 2017-18. An initial investment of \$55 million in private support facilitated the development of a semi-autonomous “LIFT Learning Community” within CMS, solely dedicated to the rapid turnaround of eight elementary and middle schools and the high school they feed into in the West Charlotte Corridor. Project LIFT’s long-term goals are to significantly improve student achievement by meeting the following targets: 1) 90% of students will achieve proficiency in math and English across the Learning Community; 2) 90% of students will meet annual growth goals in math and English; and, 3) 90% of West Charlotte High School (WCHS) students will graduate on time.

This memo is the second of three that will summarize findings from the 2015-16 school year, Year Four of Project LIFT. This memo highlights findings regarding student outcomes. The first focused on the implementation of the initiative and the third memo will focus on the impact of LIFT Partners.

Testing LIFT Effects in the Wake of Strong Implementation

According to Project LIFT’s Theory of Change, Year Four marked the first year in which Project LIFT anticipated that long term outcomes would start to take shape. This expectation was based, in part, on research indicating that large-scale educational reform initiatives require several years of robust implementation before it is appropriate to test their effectiveness. The Year Four Implementation Memo documented robust implementation of core LIFT programs, and many stakeholders reported perceived improvements in school culture and academic outcomes. When taken together, this evidence of strong implementation provides the foundation necessary to examine whether LIFT is having its expected effects on short-term outcomes associated with school climate and longer-term student achievement outcomes.

Research Questions and Methods

This report provides an analysis of short-term and long-term outcomes as well as a sub-analysis focused specifically on the effects of Continuous Learning Calendars. Our work was guided by the following specific research questions:

- How do LIFT students' behavioral and academic performance outcomes compare to those of a matched set of non-LIFT comparison students?
- How does exposure to LIFT—dosage—affect student outcomes?
- How does student achievement at schools with Continuous Learning Calendars compare to that of matched comparison students at non-LIFT schools?

Notably, RFA's Year Three analysis (January 2016) documented a positive impact of LIFT on student behavioral outcomes but was inconclusive regarding the impact of LIFT on academic outcomes. However, academically able students exited LIFT schools at a high rate. But because our analyses were conducted at the school level, we could not determine whether the lack of strong academic outcomes was due in part to the exit of high-performing students.

To address these limitations, in Year Four we conducted student-level analyses which allowed us to compare individual LIFT students to similar non-LIFT students who had never attended a LIFT school. (See Appendix B in the full report for more information about our methodological approach.) Our analyses of LIFT's impact focused on a range of academic and behavioral outcomes, as presented in Table ES-1.

Table ES-1. Outcomes Analyzed in Year Four Evaluation of LIFT

OUTCOMES ANALYZED	GRADE LEVEL		
	K-5	6-8	9-12
Climate			
Average Daily Attendance	•	•	•
Out-of-School Suspension	•	•	•
Early Warning Indicators			•
Academic			
End-of-Grade Reading Scale Score & Proficiency	•	•	
End-of-Grade Math Scale Score & Proficiency	•	•	
End-of-Grade Science Scale Score & Proficiency	•	•	
End-of-Course English II Scale Score and Proficiency			•
End-of-Course Math I Scale Score and Proficiency			•
End-of Course Biology Scale Score and Proficiency			•
High School Graduation Rate			•

Effects of LIFT on School Climate

For Year Four, we analyzed attendance and Out of School Suspensions (OSS) as key school climate indicators for all students in three grade bands – elementary (K-5), middle (6–8), and high school (9–12). For high school students, an in-depth, descriptive analysis of Early Warning Indicators (EWI) and On Track to Graduation was conducted as well.

While findings related to school climate varied to some degree, the results provide a range of evidence suggesting that LIFT has been successful in improving and maintaining positive school climate.

- LIFT significantly increased attendance rates for middle and high school students but had no consistent effect on the attendance of elementary school students.
- There were small but statistically significant increases in the probability of receiving an out-of-school suspension (OSS) for elementary and middle school students.
- The percentage of 9th grade LIFT students accumulating multiple Early Warning Indicators during their freshman year substantially decreased over time.
- OSS dropped among LIFT high school students at a higher rate than for similar students at non-LIFT high schools.
- The risk of dropping out fell considerably for LIFT 9th graders throughout the four years of LIFT, and the likelihood of graduating on time rose. However, gaps between LIFT and comparison students, while diminished, still remain.

Effects of LIFT on Academic Performance

The Theory of Change identifies three long-term academic goals for LIFT: 90% proficiency, growth, and graduation. We present progress against these goals based on two primary types of analyses:

- Repeated cross-sectional analyses examine differences between LIFT students in three grade bands (3–5, 6–8, and 9–12) and comparison students at non-LIFT schools.
- Longitudinal cohort analyses track the effect of sustained exposure to LIFT by examining changes in academic outcomes among LIFT and matched comparison students who were enrolled in 3rd or 6th grade at a LIFT or comparison school in 2012-13 and stayed at a LIFT or comparison school for the next two years.

Results

Results of each set of analyses are presented in Tables ES-2 and ES-3 below.

Table ES-2. Summary of Repeated Cross-Sectional Analysis Findings on LIFT Impacts

Scale Score	READING/ENGLISH II			MATH/MATH I			SCIENCE/BIOLOGY		
	Y1 v. Y2 (13-14)	Y1 v. Y3 (14-15)	Y1 v. Y4 (15-16)	Y1 v. Y2 (13-14)	Y1 v. Y3 (14-15)	Y1 v. Y4 (15-16)	Y1 v. Y2 (13-14)	Y1 v. Y3 (14-15)	Y1 v. Y4 (15-16)
3 rd – 5 th	+			+			+	+	+
6 th – 8 th	+	+	+					+	
9 th – 12 th						+	-		+
Proficiency Rate									
3 rd – 5 th				+			+		
6 th – 8 th	+	+	+					+	
9 th – 12 th						+			+

Table ES-3. Summary of Longitudinal Cohort Analysis Findings: Dosage Effects

3RD GRADE COHORT	2012-13 (3RD GRADERS)	
	2013-14 (4TH GRADERS)	2014-15 (5TH GRADERS)
Reading Scale Scores		
Reading Proficiency		
Math Scale Scores	+	-
Math Proficiency		
6TH GRADE COHORT	2012-13 (6TH GRADERS)	
	2013-14 (7TH GRADERS)	2014-15 (8TH GRADERS)
Reading Scale Scores	+	+
Reading Proficiency		+
Math Scale Scores	+	+
Math Proficiency	+	+

+ = statistically significant positive effect
 - = statistically significant negative effect
 Empty cell = no statistically significant effect

3rd–5th grade: Some Evidence of Impact

- LIFT had a significant positive impact on 5th grade Science EOG scale scores in all three years between 2013-14 and 2014-15.
- LIFT had a significant positive impact on Reading and Math EOG scale scores in 2013-14.
- In terms of proficiency rates, LIFT only showed a positive impact on the 2013-14 Math and Science EOGs.
- There is no consistent evidence of a LIFT dosage effect on the 3rd grade cohort.

6th–8th grade: Strong Evidence of Impact

- LIFT had a significant, positive impact on both Reading EOG scale scores and proficiency rates every year between 2013-14 and 2015-16.
- LIFT had a positive impact on the 8th grade Science EOG scale scores and proficiency rates only in 2014-15.
- There was no significant impact of LIFT on either Math EOG scale scores or proficiency rates.
- There is strong evidence of a significant, positive effect of LIFT dosage on both Reading and Math scale scores for the 6th grade cohort.
- LIFT dosage also had a strong positive effect on both Reading and Math proficiency rates.

9th–12th grade: Some Evidence of Impact

- The graduation rate at West Charlotte High School increased by over 30% since the launch of LIFT and is now within 4% of meeting LIFT’s 90% graduation rate goal.
- LIFT had a significant, positive impact on the most recent Math I and Biology EOC scale scores and proficiency rates.
- LIFT did not have a significant impact on the English II EOC achievement.
- LIFT had a positive impact on the Biology EOC scale scores in 2015-2016.

Continuous Learning Calendars Analysis

Continuous Learning Calendars redistribute school days more evenly across the calendar year to shorten the amount of time students are out of school during the summer. In 2013-14, four Project LIFT schools began operating on Continuous Learning Calendars: Bruns Academy, Druid Hills Academy, Thomasboro Academy, and Walter G. Byers Elementary. In addition, the Continuous Learning Calendars (CLCs) at Druid Hills and Thomasboro also added 19 instructional days to their school years.

There is no clear evidence that CLCs are having an effect on academic outcomes. Results are mixed, with effect sizes ranging from small negative to small positive. However, our analysis is limited by small sample size and the lack of adequate comparisons for CLC students *within* the LIFT learning community. As a result, it is not possible to determine whether our findings are due to the CLCs themselves or because we were unable to capture effects for methodological reasons.

Preview of Year Five Evaluation

As we progress into Year Five, it is essential that LIFT schools continue to robustly implement LIFT across the four focus areas. The steady implementation of key strategies driving the initiative and continued focus on improving LIFT students' performance on the EOG and EOC assessments is paramount. As exhibited in the Year Four analyses, a more nuanced picture of how strategies vary across LIFT schools and grade bands is critical. We will continue to take an in-depth look at LIFT student outcomes and the implications of the LIFT initiative to LIFT stakeholders.



Project LIFT: Year Four Student Outcomes Memo

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I. Introduction

Research for Action (RFA) is completing its fourth year of an external evaluation of the Project Leadership and Investment for Transformation (LIFT) Initiative in the Charlotte-Mecklenburg Schools (CMS).

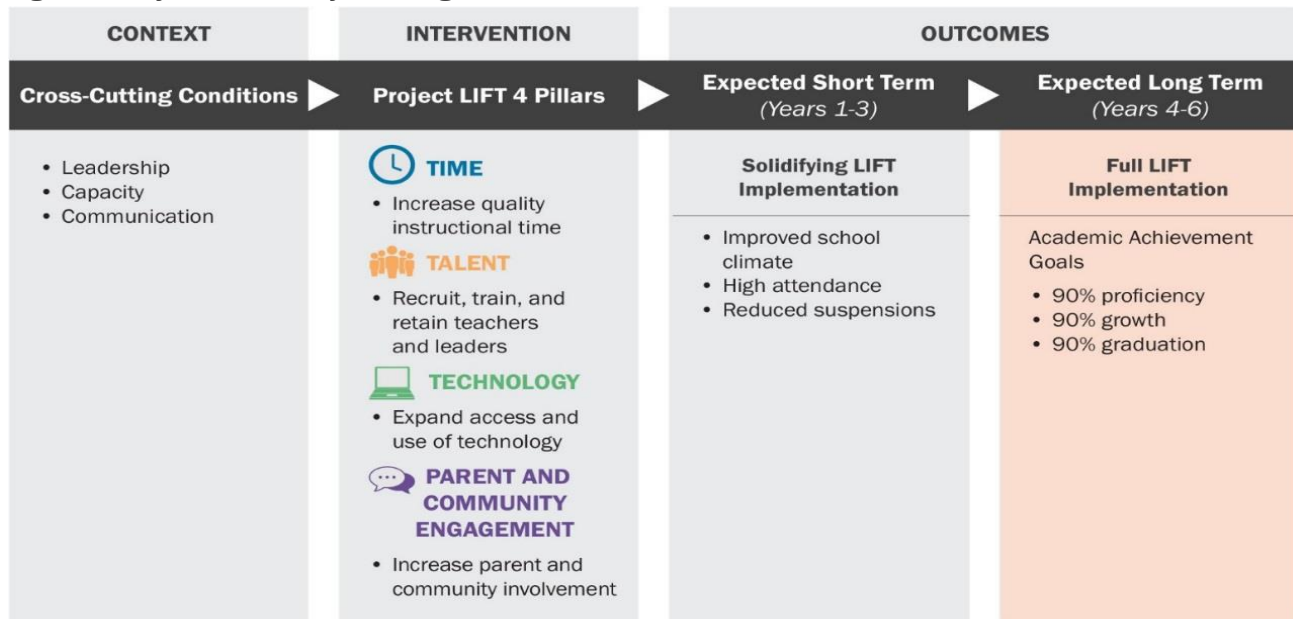
Project LIFT is a multiyear district turnaround effort created through a public-private partnership between CMS and local philanthropic and business communities. Originally planned for five years, LIFT implementation was recently extended to six years, concluding in 2017-18. An initial investment of \$55 million in private support facilitated the development of a semi-autonomous “LIFT Learning Community” within CMS, solely dedicated to the rapid turnaround of eight elementary and middle schools and the high school they feed into in the West Charlotte Corridor. While Project LIFT shares some similarities with other public-private partnerships in public education (e.g., the Harlem Children’s Zone), it is distinguished by its institutional position within CMS and its focus on developing partnerships to implement the turnaround initiative. Project LIFT’s long-term goal is to significantly improve student achievement by meeting the following targets: 1) 90% of students will achieve proficiency in math and English across the Learning Community; 2) 90% of students will meet annual growth goals in math and English; and, 3) 90% of West Charlotte High School (WCHS) students will graduate on time.

This memo, which focuses on the impact of LIFT on students’ behavioral and academic outcomes using data from the 2012-13 through 2015-16 school years, is the second of three memos that RFA will produce for the Year Four external evaluation. RFA’s Year Four Implementation Memo, delivered on October 19, 2016, described LIFT programs and strategies implemented in the 2015-16 school year. A third memo, scheduled to be completed in February, will present findings on the implementation of key LIFT partner programs and student participation in the programs.

A. Testing LIFT Effects in the Wake of Strong Implementation

The LIFT Theory of Change in Figure 1 illustrates that this complex, multi-pronged initiative requires three years of implementation before we would expect to see gains in short-term outcomes, such as improved school climate and attendance, and four years of implementation before student achievement metrics would rise. The Year Four Implementation Memo documents robust implementation of core LIFT programs, and many stakeholders reported perceived improvements in school culture and academic outcomes. When taken together, this evidence of robust implementation provides the foundation necessary to examine whether LIFT is having its expected effects on short-term outcomes associated with school climate and longer-term student achievement outcomes.

Figure 1. Project LIFT Theory of Change



B. Research Questions and Methods

Given evidence of strong LIFT implementation, this report provides an analysis of short-term and long-term outcomes as well as a sub-analysis focused specifically on the effects of Continuous Learning Calendars. Our work was guided by the following specific research questions:

1. How do LIFT students' behavioral and academic performance outcomes compare to those of a matched set of non-LIFT comparison students?
2. How does exposure to LIFT—dosage—affect student outcomes?
3. How does student achievement at schools with Continuous Learning Calendars compare to that of matched comparison students at non-LIFT schools?

Notably, RFA's Year Three analysis documented a positive impact of LIFT on student behavioral outcomes but was inconclusive regarding the impact of LIFT on academic outcomes. However, because Year Three comparisons were made at the school level (i.e., LIFT schools versus non-LIFT schools) rather than the student level, the fact that we did not observe impact may have been due to methodological limitations. Specifically, in Year Three we observed a high rate of exit from LIFT schools among students who tended to be higher-performing than those who remained in LIFT, which is a key factor outside of LIFT's control. Comparisons at the school level cannot account for this student transience.

To address these limitations, in Year Four we conducted student-level analyses which allowed us to compare individual LIFT students to similar non-LIFT students who had never attended a LIFT school. Specifically, Propensity Score Matching (PSM) was used to identify a group of students within comparison schools that most closely resembled LIFT students in terms of underlying demographic characteristics (e.g., gender, race/ethnicity, LEP), behavior (e.g. attendance and out-of-school suspension), and academic indicators (e.g. reading and math assessment). We then compared gains in LIFT students' academic

outcomes to those of matched non-LIFT students over the course of the LIFT initiative. Appendix A provides a technical overview of our methodological approach.

Our analyses of LIFT’s impact focused on a set of academic and behavioral outcomes. Table 1 lists the specific set of outcomes analyzed for students in elementary, middle, and high school.

Table 1. Outcomes Analyzed in Year Four Evaluation of LIFT

OUTCOMES ANALYZED	GRADE LEVEL		
	K-5	6-8	9-12
CLIMATE			
Average Daily Attendance	•	•	•
Out-of-School Suspension	•	•	•
Early Warning Indicators			•
On Track to Graduation			•
ACADEMIC			
End-of-Grade Reading Scale Score & Proficiency	•	•	
End-of-Grade Math Scale Score & Proficiency	•	•	
End-of-Grade Science Scale Score & Proficiency	•	•	
End-of-Course English II Scale Score and Proficiency			•
End-of-Course Math I Scale Score and Proficiency			•
End-of Course Biology Scale Score and Proficiency			•
High School Graduation Rate			•

C. High-Level Findings

Key findings presented in this Student Outcomes Memo are as follows:

1. Short-Term Outcomes: School Climate and Student Behavior

Attendance: LIFT had a consistent, positive impact on average daily attendance for both middle grade (6th–8th) and high school (9th–12th) students. However, there was no evidence of a LIFT effect on the attendance of elementary (K–5th) students in Years One through Three, and in Year Four, LIFT had a small negative effect on the average daily attendance of students in grades K through 5.

Out-of-School Suspension: There was a significant decrease in the chance of getting an out-of-school suspension for LIFT high school students, but a significant increase in the probability of out-of-school suspensions for both elementary (K–5th) students and middle (6th–8th) grade students

Early Warning Indicators: The percentage of 9th grade LIFT students accumulating multiple Early Warning Indicators during their freshman year substantially decreased over time.

On-Track to Graduation: The percentage of first-time 9th graders on track to graduation has increased significantly over time.

2. Long-Term Outcomes: Academic Achievement

Graduation Rate: The graduation rate at WCHS increased substantially and is nearing LIFT's 90% goal.

Academic Outcomes: Some evidence of a positive LIFT impact was seen on academic outcomes for each of the three grade bands. The strongest and most consistent impact was seen on reading outcomes for students in grades 6-8.

Effect of Sustained Exposure to LIFT: More exposure to LIFT amplifies impacts for 6th grade cohort students in both reading and math. However, there is no evidence of a dosage effect in 3rd grade cohort students who entered grade 3 in Year One (2012-13).

3. Continuous Learning Calendar

Analyses reveal no consistent effects of CLC on academic outcomes. Results range from small negative to small positive effects. Because of a number of methodological limitations, no conclusions about the effectiveness of CLCs can be made based on these analyses. The remainder of this memo provides more detail on these findings.

II. School Climate and Student Behavior at LIFT Elementary, Middle, and High Schools

Similar to Year Three, Year Four of LIFT continued to focus on promoting positive school culture and ongoing coaching support from the Center for Transformative Teacher Training (CT3) in order to aid teachers and administrators in implementing No Nonsense Nurturing (NNN).¹ No Nonsense Nurturing is designed to improve school climate by establishing a more defined process for addressing students' social and behavioral issues through scripted narration of classroom management protocol. Many stakeholders reported improvements in school culture. However, individual schools implemented NNN differently, and, as a result, changes across the LIFT Learning Community were not uniform.

Our qualitative research suggests that differences in out-of-school suspensions by grade bands and schools could reflect differences in school policies and expectations for grade-level behavior. For example, while multiple LIFT principals noted that NNN had helped them decrease their suspension rates, one principal stated, *"We're seeing an increase in suspensions right now, [...] but our kids still do stuff that warrants that level of consequence. In the past, they just weren't getting that consequence because we didn't have a [disciplinary] process in place."*

A. School Climate Outcomes: Overview

For Year Four, we analyzed attendance and out-of-school suspensions (OSS) as key school climate indicators for all students in three grade bands – elementary (K-5), middle (6-8), and high school (9-12). For high school students, an in-depth, descriptive analysis of Early Warning Indicators (EWI) and On Track to Graduation was conducted as well. EWI is a composite index of multiple risk factors associated with

¹ See Year Four Implementation Memo for more detail about school culture and No Nonsense Nurturing.

dropout, including attendance rates of less than 80%, multiple out-of-school suspensions, course failure, and earning three or fewer credits. On Track to Graduation indicates whether a 9th grader has accumulated 6 or more credits during the freshmen year.

In this section we present two types of analyses: an examination of the impact of LIFT on attendance and out-of-school suspensions across the three grade bands² and descriptive analyses of trends in Early Warning Indicators (EWIs) and On Track to Graduation among LIFT 9th grade students. Descriptive trend analyses for attendance and out-of-school suspensions are provided in Appendix A. In each set of analyses, we compare LIFT students with a matched comparison group of students attending non-LIFT schools.

B. School Climate Results: High Level Findings

Both LIFT and comparison elementary and middle grade students had similarly high levels of average daily attendance (See Appendix A). Findings were mixed for LIFT's impact on K-5th grade attendance, with LIFT having no effect on attendance in Years One through Three and a small negative effect in Year Four. However, we found evidence that LIFT had consistent and significant positive impact on average daily attendance in both middle and high school students.

Evidence suggests that LIFT significantly increased the probability that elementary and middle grade students would receive an out-of-school suspension in the most recent two years (2014-15 and 2015-16) of the initiative. Yet, qualitative data suggest that these increases could be attributed to the implementation of stricter discipline policies. The LIFT initiative significantly lowered out-of-school suspension rates at West Charlotte High School.

We present more detailed results for each grade band below.

C. Impact of LIFT on Attendance and Out-of-School Suspensions

For grades K-5, 6-8, and 9-12, we analyzed average daily attendance and out-of-school suspension as key school climate indicators. Descriptive analyses of the trends in each of these outcomes over four years of LIFT implementation are provided in Appendix A.

Table 2 presents estimated LIFT impacts on average daily attendance and the percentage (or probability) of students receiving one or more out-of-school suspensions.

² We utilized a difference-in-differences (DID) regression model to evaluate the impact of the LIFT initiative on attendance and out-of-school suspension. This DID approach identifies the impact that the LIFT initiative had on attendance and out-of-school suspension by comparing the LIFT students' gains in these indicators between the pre (2011-12) and each of the post-LIFT years (2012-13 through 2015-16) to the gains made by matched comparison students during the same time period. More specifically, the Ordinary Least Square (OLS) regression with school fixed effects was used to assess the impact of the LIFT initiative on an average daily attendance rate while the logistic regression model was used to assess LIFT impacts on a binary outcome measure indicating whether or not a student received one or more out-of-school suspensions. Each model controlled for race, gender, LEP status, special education status, and grade level.

Table 2. Estimated Impacts of the LIFT Initiative on Average Daily Attendance and Out-of-School Suspension, LIFT vs. Matched Comparison Students

IMPACT ANALYSIS: K-12 TH GRADE								
	AVERAGE DAILY ATTENDANCE				OUT OF SCHOOL SUSPENSIONS			
	Pre-LIFT v. Y1	Pre-LIFT v. Y2	Pre-LIFT v. Y3	Pre-LIFT v. Y4	Pre-LIFT v. Y1	Pre-LIFT v. Y2	Pre-LIFT v. Y3	Pre-LIFT v. Y4
K – 5 th	+0.3	+0.2	+0.1	-0.5**	-0.9%	+1.8%*	+4.2%***	+3.9%***
6 th – 8 th	+1.4**	+0.5*	+1.9***	+1.2***	-3.8%*	-1.5%	+1.3%	+5.0%**
9 th – 12 th	+4.4***	+3.4***	+3.6***	+3.1***	-8.5%***	-7.2%***	-10.8%***	-15.1%***

* $p < .10$; ** $p < .05$; *** $p < .01$

- pre-LIFT v. Y1: Impact of LIFT on student behavior in Pre-LIFT (2011-12) vs. Year One (2012-13)
- Pre-LIFT v. Y2: Impact of LIFT on student behavior in Pre-LIFT (2011-12) vs. Year Two (2013-14)
- Pre-LIFT v. Y3: Impact of LIFT on student behavior in Pre-LIFT (2011-12) vs. Year Three (2014-15)
- Pre-LIFT v. Y4: Impact of LIFT on student behavior in Pre-LIFT (2011-12) vs. Year Four (2015-16)

Attendance:

- There is no consistent evidence that LIFT had an impact on student attendance in grades K through 5.
- LIFT had consistent and significant positive effects on attendance for students in grades 6-8 and 9-12 across all study years.

Out-of-School Suspensions:

- LIFT increased the probability of out-of-school suspensions for K-5th grade students in Years Two through Four.
 - Qualitative data indicates that stricter disciplinary practices (e.g., No Nonsense Nurturing) and/or more consistent and defined reporting measures of student disciplines may be the cause of these increases.
- For 6th-8th graders, LIFT had mixed effects on out-of-school suspension (OSS). The probability of OSS dropped for middle school students in Year One, but increased in Year Four.
- LIFT significantly decreased the probability of OSS for high school students across all four years of the initiative.

D. Descriptive Analysis of Early Warning Indicators (EWIs) Across Four Years of LIFT Implementation

Student performance in 9th grade has been found to be one of the strongest predictors of on-time graduation. RFA tracked the following four specific Early Warning Indicators (EWIs) for both LIFT 9th graders and a matched comparison group across all four years of the initiative. Each of these measures have been found in rigorous, prior research to strongly influence academic achievement and graduation:

1. Average daily attendance (ADA) below 80%
2. Multiple out-of-school suspensions (OSS)
3. Course failure

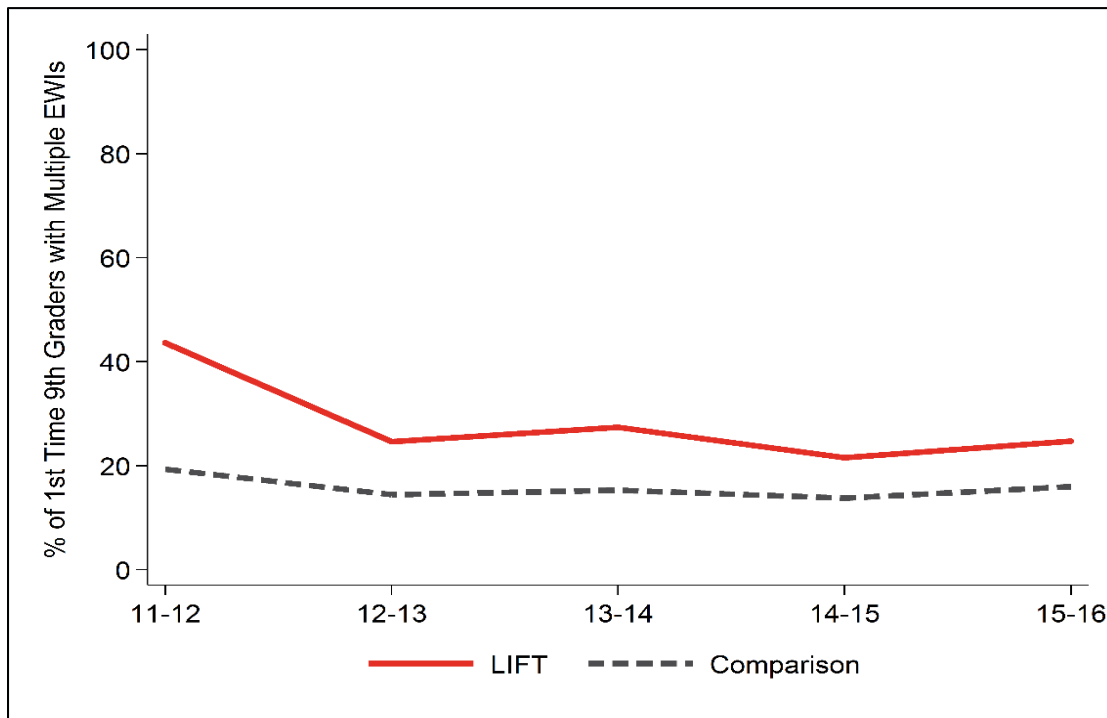
4. Earning three or fewer credits in the first school year

Analyses of impact were not conducted for EWI because EWI measures were constructed based on a small sample of incoming 9th graders. Furthermore, the high school behavioral outcomes analysis presented above already examined how LIFT impacted attendance and out-of-school suspension rates, which are two of the four EWI sub-indicators. Below, we present results for all EWIs in aggregate, followed by results of each individual EWI.

EWI Aggregate Analysis

Figure 2 displays the percentage of WCHS and comparison high school students who accumulated multiple EWIs during their first year of high school between 2011-12 and 2015-16.

Figure 2. Percentage of Incoming 9th Graders Accumulating Multiple EWIs, 2011-12 to 2015-16



* 2011-12 was pre-LIFT.

DESCRIPTIVE TREND ANALYSIS: 9TH GRADE					
	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT - % of students with multiple EWIs	43.6%	24.6%	27.4%	21.5%	24.7%
Comparison - % of students with multiple EWIs	19.3%	14.4%	15.3%	13.7%	16.0%

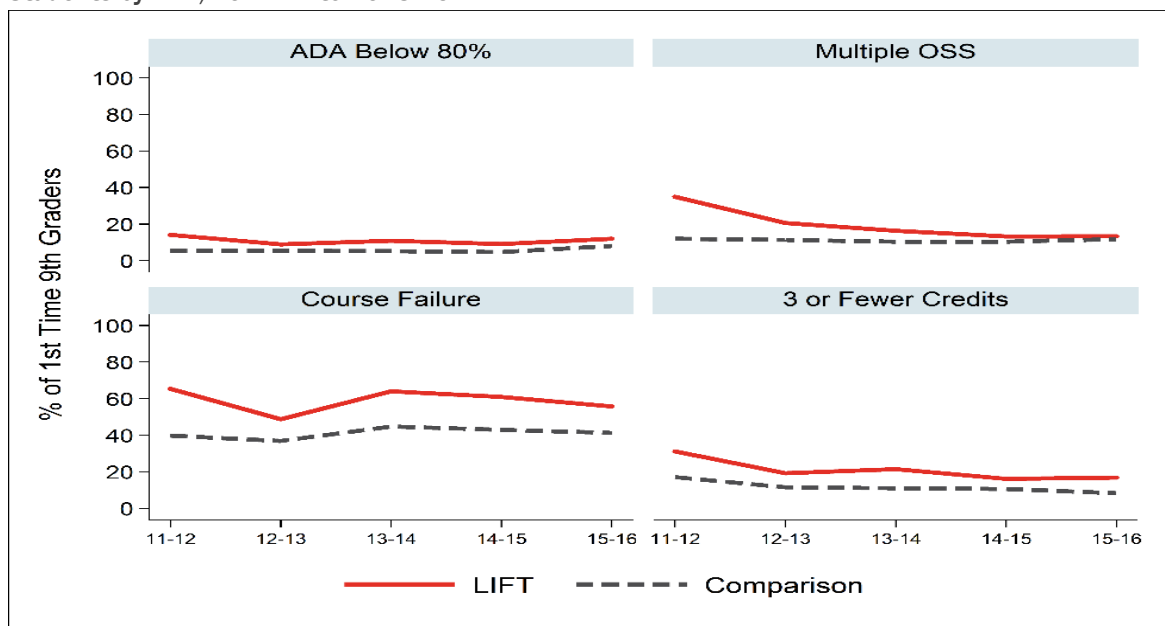
- Prior to the implementation of LIFT, the percentage of WCHS 9th graders who accumulated multiple EWIs was almost 44%. This was 23% higher than the rate of EWIs among matched comparison students.

- Since LIFT implementation, the gap between the two groups has narrowed significantly to within 9 percentage points.
- Still, a consistently lower percentage of comparison students accumulate EWIs than do LIFT students.

Analysis of Individual EWIs

Figure 3 presents the percentage of WCHS and comparison high school 9th grade students who accumulated an EWI during their freshman year in each of the following areas: Average daily attendance (ADA) rate below 80%; multiple out-of-school suspensions (OSS); course failure; or earning 3 or fewer credits.

Figure 3. Early Warning Indicator Accumulation for First-Time 9th Grade Students: LIFT Students vs. Comparison Students by EWI, 2011-12 to 2015-16



When examining each EWI individually, we found that:

- The percentage of LIFT 9th graders accumulating EWIs dropped over time for all individual metrics.
- In contrast, accumulation of individual EWIs remained relatively stable among the 9th grade comparison students.

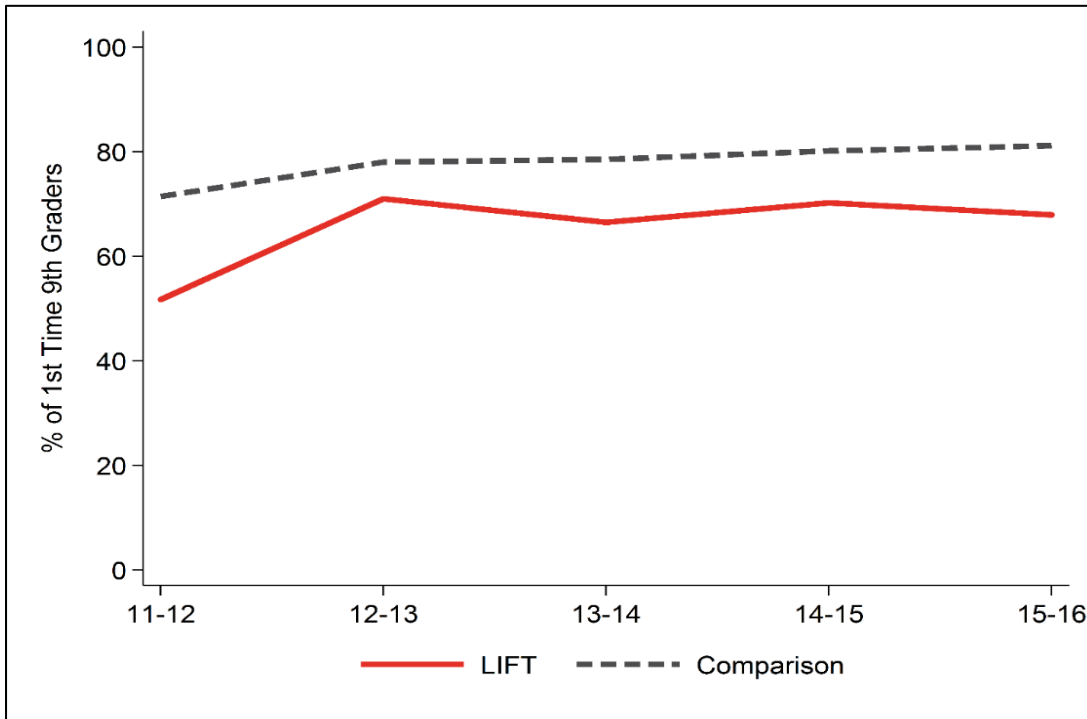
E. Analysis of On-Track to Graduation Status for 9th Grade Students

RFA examined descriptive trends in the percentage of students in the 9th grade LIFT cohort that was on track to graduate. We used the accumulation of six or more credits in 9th grade as a proxy measure for this indicator. This analysis provides intermediate data on LIFT’s progress towards meeting its 90% graduation goal. We only conducted descriptive analyses for this metric because the metric only applies to 9th grade students and the size of the 9th grade LIFT cohort was insufficient for impact analyses.

Descriptive Trend Analysis

Figure 4 presents the percentage of WCHS and comparison high school 9th grade students who were on track to graduate between 2011-12 and 2015-16 as measured by the accumulation of 6 credits.

Figure 4. Percent of 9th Grade Cohorts On-Track to Graduation after 9th Grade: WCHS Students vs. Matched Comparison Students, 2011-12 to 2015-16



* 2011-12 was pre-LIFT.

DESCRIPTIVE TREND ANALYSIS: 9 TH GRADE					
	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT - % of students on track to graduation	51.7%	71.0%	66.4%	70.2%	67.9%
Comparison - % of students on track to graduation	71.4%	78.0%	78.5%	80.1%	81.1%

- The percentage of WCHS first-time 9th graders who were on track to graduate increased by approximately 20 percentage points in the first year of LIFT (2012-13), and these gains were maintained over the four year implementation of the initiative.
- While the gap between the two groups lessened, the percentage of comparison first-time 9th graders who were on track to graduate continued to exceed that of LIFT first-time 9th graders.

F. Summary: Climate at LIFT Elementary, Middle, and High Schools

While findings varied to some degree, the results presented in this section provide a range of evidence suggesting that LIFT has been successful in improving and maintaining positive school climate.

- LIFT significantly increased attendance rates for middle and high school students but had no consistent effect on the attendance of elementary school students.
- There were small but statistically significant increases in the probability of receiving an out-of-school suspension (OSS) for elementary and middle school students.
- OSS dropped among LIFT high school students at a higher rate than for similar students at non-LIFT high schools. The risk of dropping out fell considerably for LIFT 9th graders throughout the 4 years of LIFT, and the likelihood of graduating on time rose as well. However, gaps between LIFT and comparison students, while diminished, still remain.

III. LIFT Student Academic Performance: Scale Scores, Proficiency Levels and Graduation Rates

The Theory of Change identifies three long-term academic goals for LIFT: 90% proficiency, growth, and graduation. In this section we present progress against these goals based on two types of analyses:

1. Repeated cross-sectional analyses examine differences between LIFT students in three grade bands (grades 3–5, 6–8, and 9–12) and matched comparison students at non-LIFT schools.
2. Longitudinal cohort analyses track changes in academic outcomes among LIFT and matched comparison students who were enrolled in 3rd or 6th grade at a LIFT or comparison school in 2012-13 and stayed at a LIFT or comparison school for the next two years.

Each type of analysis served a different purpose. Findings from the repeated cross-sectional analyses provide a “snapshot impact” of LIFT based on all students who attended a LIFT school in a given year. In contrast, the longitudinal cohort analysis provides “dosage effects” of the LIFT treatment based on the same group of students who stayed at a LIFT or comparison school for all three years between 2012-13 and 2014-15.

For both repeated cross-sectional and longitudinal cohort analyses, student-level propensity score matching was used in order to identify comparison students that closely matched LIFT students for demographic characteristics (gender, race/ethnicity, special education status, and Limited English Proficiency), behavioral outcomes (attendance and out-of-school suspension), and/or baseline academic achievement.

We applied a quasi-experimental research design to analyze how the Project LIFT initiative impacted LIFT student performance on North Carolina’s end of grade (EOG) or end of course (EOC) state assessments during the four years of the LIFT initiative (i.e., 2012-13 through 2015-16), compared to those of a matched set of non-LIFT comparison students. In this analysis, the EOG and EOC scores from Year One (2012-13) were used as baseline test scores against which gains in test scores were computed in each of the subsequent years. We selected this specification, known as a “delayed impact model,” based on RFA’s previous implementation and student outcomes analysis findings, which indicate LIFT had little impact on academic achievement in first year of the initiative (2012-13) because many of the LIFT program

components were not fully implemented at the time data were collected. Appendix B provides detailed methodological notes on Year Four academic outcomes analysis as well as descriptive analyses for each outcome.

We present the results of our LIFT impact analyses for each grade band below. Descriptive analyses of the trends in LIFT and matched comparison students’ performance on the EOG and EOC assessments over four years of LIFT implementation are provided in Appendices C through G.

A. Repeated Cross-Sectional Analysis: Elementary (Grades 3–5)

Table 3 presents an impact analysis of Year One (2012-13) versus each subsequent year (Years Two through Four) of 3rd–5th grade LIFT and comparison students’ average standardized scale scores and proficiency rates by subject assessment.

Table 3. Impact of LIFT on 3rd–5th Graders’ EOG Subject Tests: Average Scale Scores and Percent Students Achieving at or above Proficiency

LIFT IMPACT ANALYSIS: 3RD–5TH GRADE						
STANDARDIZED SCALE SCORE				PROFICIENCY RATE		
SUBJECT	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)
Reading	+0.9*	+0.5	+0.2	+1.3%	+0.6%	-0.9%
Math	+1.3***	+0.0	-0.8	+5.4%*	+0.9%	-2.5%
Science	+2.2***	+2.7***	+3.1***	+10.3%*	+5.2%	+6.6%

* $p < .10$; ** $p < .05$; *** $p < .01$

- Y1 v.Y2: Impact of LIFT on student performance in Year One (2012-13) vs. Year Two (2013-14)
- Y1 v. Y3: Impact of LIFT on student performance in Year One (2012-13) vs. Year Three (2014-15)
- Y1 v. Y4: Impact of LIFT on student performance in Year One (2012-13) vs. Year Four (2015-16)

High-level Findings:

- LIFT had a positive impact on Reading EOG scale scores in Year Two (2013-14).
- LIFT had a positive impact on Math EOG scale scores and proficiency rates in Year Two (2013-14).
- LIFT had a positive impact on 5th grade Science EOG scale scores in Year Two through Four (2013-14 through 2015-16) and 5th grade Science EOG proficiency rates in Year Two (2013-14).

B. 3rd Grade Longitudinal Cohort Analysis: Dosage Effect

Table 4 presents an impact analysis of dosage effects of Year One (2012-13) versus each subsequent year (Year Two and Year Three) of the 3rd grade cohort LIFT and matched comparison students’ average standardized scale scores and proficiency rates by subject assessment.

Table 4. Impact of LIFT on 3rd Grade Cohort’s EOG Subject Tests: Average Scale Scores and Percent Students Achieving at or above Proficiency

LIFT IMPACT ANALYSIS: 3RD GRADE COHORT				
SUBJECT	STANDARDIZED SCALE SCORE		PROFICIENCY RATE	
	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)
Reading	+0.4	-0.9	+2.1%	-3.7%
Math	+1.9***	-0.8*	+4.8%	-5.5%

* $p < .10$; ** $p < .05$; *** $p < .01$

- Y1 v.Y2: Impact of LIFT on student performance in Year One (2012-13) vs. Year Two (2013-14)
- Y1 v. Y3: Impact of LIFT on student performance in Year One (2012-13) vs. Year Three (2014-15)

High-Level Findings:

- LIFT had no dosage effect on the 3rd grade cohort’s Reading EOG.
- The dosage effects of LIFT on the 3rd grade cohort’s Math EOG standardized scale scores were inconsistent over time. There was a positive impact in Year Two (2013-14), but a small, negative impact in Year Three (2014-15).

C. Repeated Cross-Sectional Analysis: Middle (Grades 6–8)

Table 5 presents an impact analysis of Year One (2012-13) versus each subsequent year (Years Two through Four) of 6th–8th grade LIFT and matched comparison students’ average standardized scale scores and proficiency rates by subject assessment.

Table 5. Impact of LIFT on 6th–8th Graders’ Performance EOG Subject Tests: Average Scale Scores and Percent Students Achieving at or above Proficiency

LIFT IMPACT ANALYSIS: 6TH–8TH GRADE						
SUBJECT	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)
Reading	+1.2**	+1.1**	+0.9*	+4.2%*	+6.4%***	+6.1%**
Math	+0.1	+0.3	-0.1	+0.3%	+0.4%	+0.1%
Science	-1.1	+2.8***	+0.3	-6.6%	+10.7%**	+1.5%

* $p < .10$; ** $p < .05$; *** $p < .01$

- Y1 v.Y2: Impact of LIFT on student performance in Year One (2012-13) vs. Year Two (2013-14)
- Y1 v. Y3: Impact of LIFT on student performance in Year One (2012-13) vs. Year Three (2014-15)
- Y1 v. Y4: Impact of LIFT on student performance in Year One (2012-13) vs. Year Four (2015-16)

High-Level Findings: There is strong evidence of LIFT impact on both Reading and Science in the middle grades. Specifically:

- LIFT had a significant positive impact on 6th–8th graders’ Reading EOG scale scores and proficiency during the course of the initiative.

- LIFT had a positive impact on LIFT students’ Year Three (2014-15) Science EOG scale scores and proficiency rates.
- LIFT did not have a significant impact on 6th–8th graders’ Math EOG standardized scale scores or proficiency rates.

D. 6th Grade Longitudinal Cohort Analysis: Dosage Effect

Table 6 presents an impact analysis of dosage effects of Year One (2012-13) versus each subsequent year (Year Two and Year Three) of the 6th grade cohorts’ average standardized scale scores and proficiency rates by subject assessment.

Table 6. Impact of LIFT on 6th Grade Cohort’s EOG Subject Tests: Average Scale Scores and Percent Students Achieving at or above Proficiency

LIFT IMPACT ANALYSIS: 6TH GRADE COHORT				
STANDARDIZED SCALE SCORE			PROFICIENCY RATE	
SUBJECT	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)
Reading	+1.1**	+1.1**	+4.7%	+9.3%**
Math	+0.9**	+1.2***	+7.3%*	+8.3%*

* p<.10; ** p<.05; *** p<.01

- Y1 v. Y2: Impact of LIFT on student performance in Year One (2012-13) vs. Year Two (2013-14)
- Y1 v. Y3: Impact of LIFT on student performance in Year One (2012-13) vs. Year Three (2014-15)

High-Level Findings:

There is strong evidence of a LIFT dosage effect in the middle grades. Specifically:

- LIFT had a positive dosage effect on the 6th grade cohort’s Reading EOG scale scores in both Year Two (2013-14) and Year Three (2014-15).
- LIFT had a positive dosage effect on the 6th grade cohort’s Year Three (2014-15) Reading EOG proficiency rates.
- LIFT had a positive dosage effect on the 6th grade cohort’s Math EOG scale scores and proficiency rates in both Year Two (2013-14) and Year Three (2014-15).

E. Repeated Cross-Sectional Analysis: High School (Grades 9–12)

Table 7 presents results from the impact analysis of Year One (2012-13) versus each subsequent year (Year Two-Year Four) of 9th–12th grade LIFT and comparison students’ average standardized scale scores and proficiency rates by subject assessment.

Table 7. Impact of LIFT on 9th–12th Graders’ Performance EOG Subject Test: Average Scale Scores and Percent Students Achieving at or above Proficiency

LIFT IMPACT ANALYSIS: 9TH–12TH GRADE						
SUBJECT	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)
English II	+0.2	+0.2	-0.4	+0.0	+4.9	+4.7
Math I	+0.4	+0.8	+2.2***	+1.8	+6.4	+16.1***
Biology	-1.6*	-0.8	+1.6*	-7.5	-2.9	+10.9**

* p<.10; ** p<.05; *** p<.01

- Y1v.Y2: Impact of LIFT on student performance in Year One (2012-13) vs. Year Two (2013-14)
- Y1v.Y3: Impact of LIFT on student performance in Year One (2012-13) vs. Year Three (2014-15)
- Y1v.Y4: Impact of LIFT on student performance in Year One (2012-13) vs. Year Four (2015-16)

High-level Findings:

LIFT had a significant impact on some, but not all, indicators of student achievement in Year Four. Specifically:

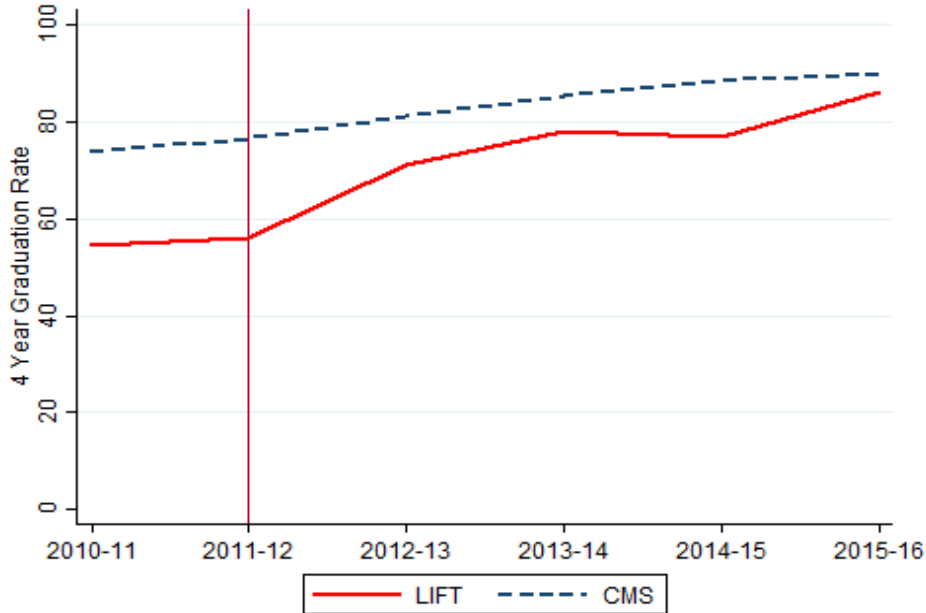
- LIFT had a positive impact on math performance. We document a significant effect for both Math I EOC scale scores and proficiency rates in Year Four (2015-16).
- LIFT had mixed impacts on biology performance. While there was a significant negative effect in Year Two (2013-14), by Year Four (2015-16) we document a positive impact on both Year Four scale scores and proficiency rates.
- LIFT had no impact on either English II EOC scale scores or proficiency.

F. High School Graduation Rates

Graduation rates at West Charlotte High School increased by nearly 30% to 86% during the four years of LIFT implementation. The gap between LIFT and non-LIFT students has shrunk to under 4%. Figure 5 displays the state-reported percentage of 9th grade cohorts’ four-year graduation rates for West Charlotte High School (WCHS) and Charlotte-Mecklenburg Schools (CMS) over a time span of six academic calendar years.³

³ The percentages listed below were provided via the Public Schools of North Carolina, State Board of Education, Department of Public Instruction. (<http://www.dpi.state.nc.us/accountability/reporting/cohortgraduate>)

Figure 5. Percent of Students Graduating from High School in Four Years, 2010-11 through 2015-16, WCHS vs. CMS



The vertical line in Figure 5 indicates pre-initiative graduation rates.

DESCRIPTIVE TREND ANALYSIS: GRADUATION RATE						
	Pre-LIFT (2010-11)	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
CMS Graduation Rates	73.5%	76.4%	81.0%	85.1%	88.3%	89.6%
WCHS Graduation Rates	54.3%	56.1%	71.1%	78.0%	76.9%	85.9%

High-Level Findings:

- The graduation rate at West Charlotte High School increased by over 30% since the launch of LIFT.
- In contrast, graduation rates for students attending comparison schools rose at a much more modest rate.
- By 2015-16, West Charlotte High School was within four percentage points of achieving Project LIFT's overall goal of a 90% graduation rate.

G. Summary of Academic Outcomes Analysis

We found some significant, positive impact of the LIFT initiative on academic outcomes within each of the three grade bands. Impact was most consistent in the middle grades.

Table 8 presents a summary of findings from the repeated cross-sectional analyses. Table 9 provides a summary of the 3rd and 6th grade cohort analysis findings which indicate dosage effects of the LIFT treatment.

Table 8. Summary of Repeated Cross-Sectional Analysis Findings on LIFT Impacts

READING/ENGLISH II			MATH/MATH I			SCIENCE/BIOLOGY			
Scale Score	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)	Y1 v. Y2 (2013-14)	Y1 v. Y3 (2014-15)	Y1 v. Y4 (2015-16)
3 rd – 5 th	+			+			+	+	+
6 th – 8 th	+	+	+					+	
9 th – 12 th						+	-		+
Proficiency Rate									
3 rd – 5 th				+			+		
6 th – 8 th	+	+	+					+	
9 th – 12 th						+			+

+ = statistically significant positive effect

- = statistically significant negative effect

Empty cell = no statistically significant effect

- In 3rd – 5th grade, LIFT had a significant positive impact on the 5th grade Science EOG scale score in all three years between 2013-14 and 2014-15.
 - LIFT had a significant positive impact on Reading and Math EOG scale scores only in 2013-14.
 - In terms of proficiency rates, LIFT only showed a positive impact on the 2013-14 Math and Science EOGs.
- In 6th – 8th grade, LIFT had a significant, positive impact on both Reading EOG scale scores and proficiency rates every year between 2013-14 and 2015-16.
 - There was no significant impact of LIFT on either Math EOG scale scores or proficiency rates.
 - LIFT had a positive impact on the 8th grade Science EOG scale scores and proficiency rates only in 2014-15.
- In 9th – 12th grade, a significant, positive impact of LIFT was found only on the 2015-16 Math I and Biology EOC scale scores and proficiency rates.
 - LIFT did not have a significant impact on the English II EOC achievement.
 - LIFT had a negative impact on the Biology EOC scale scores in 2013-14.

Table 9. Summary of Longitudinal Cohort Analysis Findings on LIFT Impacts

3RD GRADE COHORT	2012-13 (3RD GRADERS)	
	2013-14 (4TH GRADERS)	2014-15 (5TH GRADERS)
Reading Scale Scores		
Reading Proficiency		
Math Scale Scores	+	-
Math Proficiency		
6TH GRADE COHORT	2012-13 (6TH GRADERS)	
	2013-14 (7TH GRADERS)	2014-15 (8TH GRADERS)
Reading Scale Scores	+	+
Reading Proficiency		+
Math Scale Scores	+	+
Math Proficiency	+	+

+ = statistically significant positive effect
 - = statistically significant negative effect
 Empty cell = no statistically significant effect

- In the 3rd grade cohort, LIFT did not have an impact on student achievement in the Reading EOG scale scores or proficiency rates.
 - LIFT had mixed impacts on the Math EOG scale scores – a positive impact in 2013-14, but negative in 2014-15, while it had no significant impact on the Math EOG proficiency rates.
- In the 6th grade cohort, LIFT had a significant, positive impact on both Reading and Math EOGs.
 - For both Reading and Math EOGs, the estimated LIFT impacts increased over time, which is strong evidence of positive LIFT dosage effects.

IV. Effects of Continuous Learning Calendars

In 2013-14, four Project LIFT schools began operating on Continuous Learning Calendars: Bruns Academy, Druid Hills Academy, Thomasboro Academy, and Walter G. Byers Elementary. The Continuous Learning Calendars were implemented to 1) mitigate the effects of summer learning loss and 2) enhance the overall amount of quality instructional time for students in these schools. Continuous Learning Calendars redistribute the school days in an academic year more evenly across the calendar year to shorten the amount of time students are out of school during the summer. In addition, the Continuous Learning Calendars at Druid Hills and Thomasboro also added 19 instructional days to their school years.

In non-CLC LIFT schools, students may participate in the Building Educated Leaders for Life summer program (BELL). The BELL summer program provides academic programming, mentoring, and cultural enrichment during the summer. LIFT teachers and principals intentionally select low-performing students for participation in BELL.

Note on Limitations of the CLC Analysis

Findings from the CLC analysis presented below should not be considered a definitive assessment of the effectiveness of CLC in LIFT schools. There are a number of key methodological limitations that constrain our ability to provide conclusive findings about CLCs. These include the following:

Adequate comparisons for CLC students are not available *within* the LIFT learning community. To sufficiently measure the distinct effects of CLC in LIFT schools, our analysis would need to compare performance between students at CLC LIFT schools to an equivalent group of students at non-CLC LIFT schools. However, this strategy cannot be applied because LIFT schools with and without CLC are substantially different. For example, all four CLC LIFT schools have a PK-8 structure, but only one *non-CLC* LIFT school is PK-8; two are K-5 elementary schools and one is a 6th – 8th grade middle school. More importantly, the CLCs operate in the lowest performing, highest-need schools within the LIFT Learning Community. Students attending Bruns Academy and Druid Hills Academy are recognized throughout the Learning Community as some of the most challenging to serve, and all four CLC schools have substantially lower academic performance than Non-CLC LIFT schools (see Appendix H for comparisons of student achievement between CLC and Non-CLC LIFT schools). As a result, it is impossible for us to identify a matched comparison group.

Due to these constraints, our analysis only compares the performance of students at LIFT CLC schools to that of students selected from non-LIFT comparison schools. More specifically, we conducted the following two comparisons to assess the academic outcomes of CLC students in the Math and Reading EOG assessments:

- LIFT students who attended CLC schools with 180-day calendars (LIFT CLC 180) vs. matched comparison students who attended non-LIFT PK-8 schools
- LIFT students who attended CLC schools with 199-day calendars (LIFT CLC 199) vs. matched comparison student who attended non-LIFT PK-8 schools

The lack of a “LIFT-without-CLC” group in this analysis entails a critical limitation in interpreting findings. Since both CLC 180 and CLC 199 schools also adopted the LIFT initiative, it would be impossible to disentangle CLC effects from the effects of other elements of the LIFT initiative in those schools. Thus, the CLC findings presented below are at best correlational, not causal.

Small sample size. With only two schools operating under each CLC model, it is not possible to disentangle the effect of the CLCs from the effect of simply attending the school itself.

Below, we provide findings from our CLC school analyses by grade bands: elementary (grades 3–5) and middle (grades 6–8).

A. CLC Student Outcomes

We first examined trends in academic performance of CLC students and their matched comparisons on the Reading and Math EOGs using two student performance metrics: standardized average scale scores and proficiency rates. Appendix I presents the complete descriptive trends in the CLC and matched comparison students’ performance on the Reading and Math EOG assessments. Next, a set of multiple regression analyses were conducted to estimate how LIFT students in the CLC and non-CLC schools performed on the

Reading and Math EOG assessments compared to matched comparison students at non-LIFT schools. In these analyses, LIFT students' gains in scale scores and the percentage students achieving proficiency were compared to those of matched comparison students separately across the three LIFT groups (LIFT CLC 180, LIFT CLC 199, and LIFT non-CLC), controlling for differences in attendance, behavior, and demographics. Again, students were grouped into two grade bands (grade 3–5 and 6–8). Results from these analyses are reported in Table 10 and Table 11 below.

Grades 3–5

Results for grades 3-5 were mixed. Table 10 summarizes the results of our analyses of both scale scores and percent proficient in reading and math.

Table 10. 3rd–5th Grade: Differences in Gains in Scale Scores and the Percentage of Students Achieving Proficiency on Reading and Math EOGs, CLC vs. Matched Comparison Students

CLC IMPACT ANALYSIS: 3RD–5TH GRADE						
YEAR	SCALE SCORE			PROFICIENCY		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Reading EOG						
CLC 180 vs. Comparison	+1.7	+0.5	+1.2	+5.3%	+0.4%	+0.1%
CLC 199 vs. Comparison	+1.1	+0.4	+1.1	-0.2%	-1.8%	-2.6%
Math EOG						
CLC 180 vs. Comparison	-1.0	-3.7***	-4.5***	+3.3%	-17.1%***	-20.5%***
CLC 199 vs. Comparison	-1.1	-2.3***	-2.0**	-5.1%	-14.1%***	-11.9%**

* p<.10; ** p<.05; *** p<.01

- LIFT CLC 180 and CLC 199 student gains in the Reading EOG were not statistically different from those of matched comparison students at non-LIFT schools.
- On the Math EOG, students at CLC 180 and CLC 199 schools made significantly smaller gains compared to matched students at non-LIFT schools in 2014-15 and 2015-16.

Grades 6–8

Results were also mixed in the middle school grades, as summarized in Table 11.

Table 11. 6th–8th Grade: Differences in Gains in Scale Scores and the Percentage of Students Achieving Proficiency on Reading and Math EOGs, LIFT vs. Matched Comparison Students

CLC IMPACT ANALYSIS: 6TH–8TH GRADE						
YEAR	SCALE SCORE			PROFICIENCY		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
Reading EOG						
CLC 180 vs. Comparison	-0.5	+0.2	+0.6	+3.2%	+9.9%*	+3.5%
CLC 199 vs. Comparison	-0.7	+1.9*	+0.7	-4.0%	+7.2%	+3.9%
Math EOG						
CLC 180 vs. Comparison	-0.6	-0.4	-1.5*	0.8%	-2.4%	-4.3%
CLC 199 vs. Comparison	-0.7	-0.4	-2.0**	-2.1%	-0.3%	-6.3%

* p<.10; ** p<.05; *** p<.01

- On the Reading EOG, students at the CLC 180 and CLC 199 schools showed gains that were either similar to or slightly higher than gains achieved by their matched comparison students at Non-LIFT schools.
- On the Math EOG Scale Score, the CLC students gained significantly less than their peers in 2015-16. Gains in proficiency rates were not significantly different between CLC students and matched comparison students.

Summary

Extant research on continuous learning calendars shows no conclusive evidence for the effects of continuous learning calendars on academic achievement. Similarly, we find mixed results for the effects of CLC in LIFT schools, with effect sizes ranging from small negative to small positive.⁴ Given these results and the methodological limitations noted above, it is fair to say that we see no consistent, positive effect of CLCs on academic achievement. However, we cannot say whether this finding is due to the ineffectiveness of CLCs themselves, or because we were unable to capture effects for methodological reasons.

V. Summary and Preview of Year Five Evaluation

Project LIFT produced robust successes in sustaining positive school climate improvements during the first four years across all grade bands. Most notably, LIFT students had high attendance percentages across elementary (K–5), middle (6–8), and high school (9–12) grade bands, and out-of-school (OSS) suspension rates decreased in high school grade bands. However, OSS in LIFT elementary and middle grade bands fluctuated over the course of the initiative. The overall risk levels for incoming cohorts of LIFT 9th grade WCHS students decreased over the four year span of the initiative. As of year four, West Charlotte High School was only 4.1 percentage points away from achieving Project LIFT's overall goal of a 90% graduation rate.

While varying in magnitude and subject, we found some significant, positive impact of the LIFT initiative on academic outcomes within all the three grade bands. Findings from the repeated cross-sectional analysis indicated that LIFT had the most significant impact on the Science EOG achievement in the elementary grade band while it had the largest impact on the Reading EOG achievement in the middle grade band. No strong evidence of LIFT impact on either scale scores or percent proficient was found in the high school grade band. Additionally, the longitudinal cohort analysis found that a cohort of students who 1) entered grade six in Year One (2012-13) and 2) continuously attended LIFT schools the subsequent two years made significantly greater gains in both Reading and Math EOGs than matched comparison students, which suggest strong evidence of positive LIFT dosage effects.

Project LIFT continues to make considerable gains in improving school climate and student achievement. Yet there is no conclusive evidence about the CLC initiative's effectiveness in improving student performance on the Reading and Math EOG assessments. Our CLC analysis suggest that 3rd – 5th and 6th – 8th graders at LIFT CLC 180 and CLC 199 schools had either similar or significantly lower gains on the Reading and Math EOGs compared to matched comparison students at non-LIFT schools. However, our analyses of CLC were limited in that they used a matched comparison group made up of non-LIFT, relatively higher

⁴ Cooper, H., Valentine, J. C., Charlton, K. & Melson, A. (2003). The Effects of Modified School Calendars on Student Achievement and on School and Community Attitudes. *Review of Educational Research*. Vol. 73, No. 1 (Spring, 2003), pp. 1-52.

performing students. Therefore, to sufficiently isolate the effect of CLC on LIFT students, it would be necessary to conduct further research comparing CLC LIFT students to similar non-CLC LIFT students.

As we progress into Year Five of the initiative, it is essential that LIFT schools continue to robustly implement LIFT across the four focus areas for Year Five. The steady implementation of key strategies driving the initiative and continued focus on improving LIFT students' performance on the EOG and EOC assessments is paramount. As exhibited in the Year Four analyses, a more nuanced picture of how strategies vary across LIFT schools and grade bands is critical. We will continue to take an in-depth look at LIFT student outcomes and the implications of the LIFT initiative to LIFT stakeholders.

Appendix A. Trend Analysis of Attendance and Out-of-School Suspension

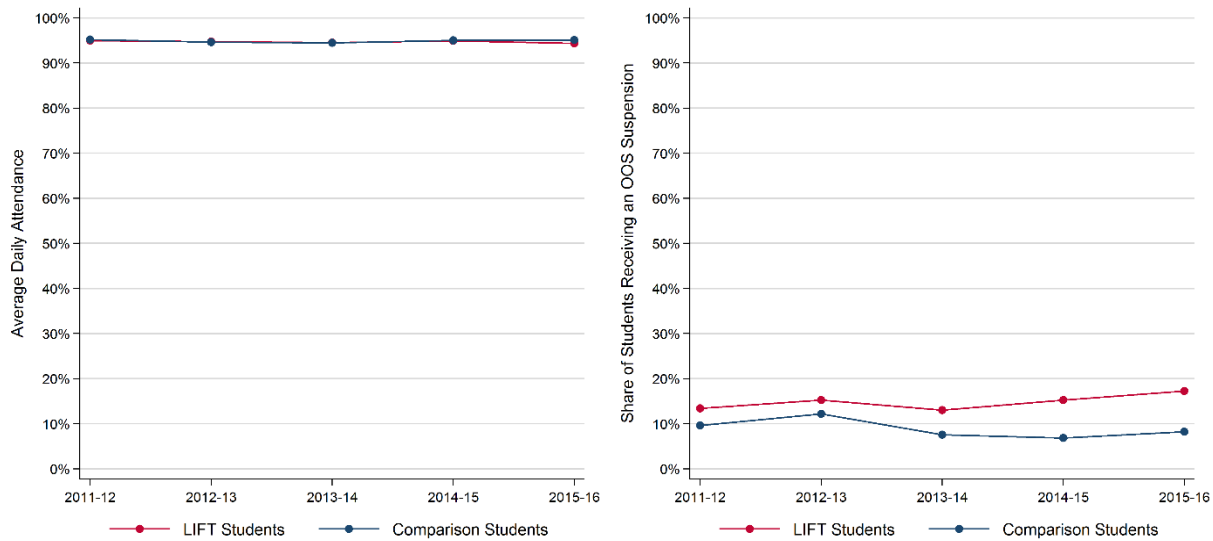
A. Elementary (Grades K-5)



K-5th grade students in LIFT schools had an average daily attendance of over 94% during the 2011-12 through 2015-16 school years. This was similar to attendance for matched comparison students in non-LIFT schools during the same time period.

These results are depicted in Figure A1 and Table A1 below.

Figure A1. Trends in K – 5th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students



K - 5th Grade

Table A1. Trends in K – 5th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students

TREND ANALYSIS: K – 5 TH GRADE										
	AVERAGE DAILY ATTENDANCE					OUT OF SCHOOL SUSPENSIONS				
	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	94.9%	94.7%	94.5%	94.8%	94.4%	13.4%	15.2%	13.0%	15.3%	17.3%
Comparison	95.2%	94.6%	94.4%	95.0%	95.1%	9.7%	12.2%	7.5%	6.9%	8.2%

- Both LIFT and comparison students maintained similar average daily attendance rates (94-95%) from 2011-12 through 2015-16.
- Since 2011-12, LIFT students have had a consistently higher level of OSS than matched comparison students.
 - The difference in OSS percentages between LIFT and matched comparison students is the largest in 2015-16 at 9.1%.

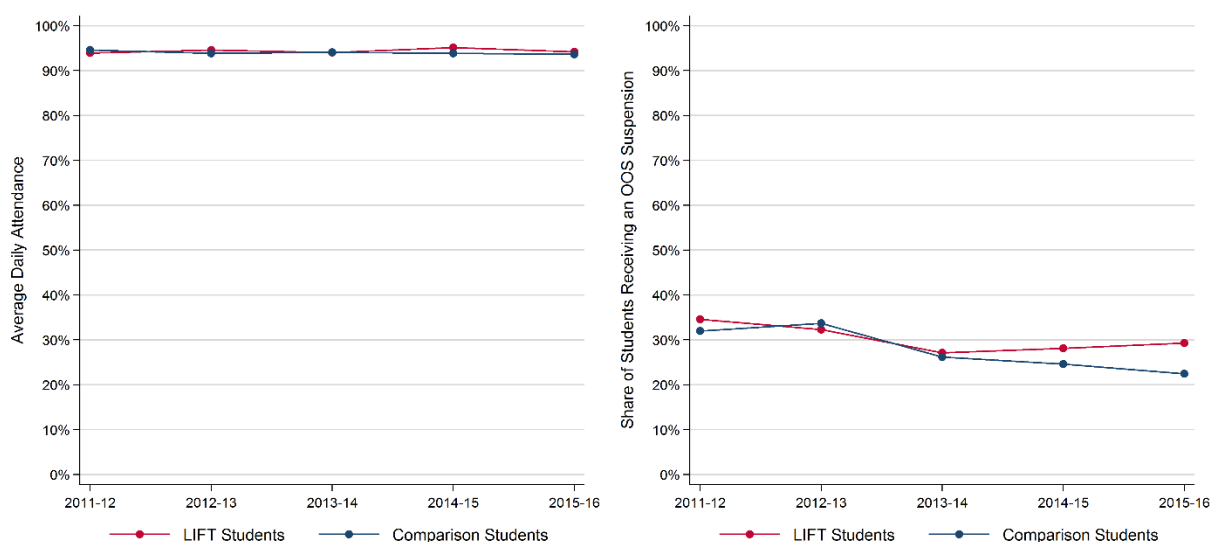
B. Middle (Grades 6–8)

Average daily attendance of LIFT students in grades 6-8 was around 94% or higher during the 2011-12 through 2015-16 school years and the percentage of LIFT students in grades 6-8 receiving at least one OSS decreased steadily from 2011-12 through 2013-14.



These results are depicted in Figure A2 and Table A2 below.

Figure A2. Trends in 6th – 8th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students



6th - 8th Grade

Table A2. Trends in 6th – 8th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students

TREND ANALYSIS: K – 5 TH GRADE										
AVERAGE DAILY ATTENDANCE						OUT OF SCHOOL SUSPENSIONS				
	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	94.0%	94.6%	94.0%	95.2%	94.2%	34.6%	32.3%	27.1%	28.1%	29.3%
Comparison	94.6%	93.9%	94.1%	93.9%	93.7%	31.9%	33.6%	26.2%	24.6%	22.4%

- The average daily attendance rate for 6th-8th grade LIFT students remained at a high level, ranging between 94-95% from 2011-12 through 2015-16.
 - Attendance rates among LIFT students were higher than those of the matched comparison students in the first three years of implementation.
- The percentage of LIFT students in 6th-8th grade receiving at least one OSS decreased steadily from 2011-12 through 2013-14, but rose in the most recent two years. In contrast, the percentage of non-LIFT matched comparison students receiving OSS has been declining steadily for the most recent three years.

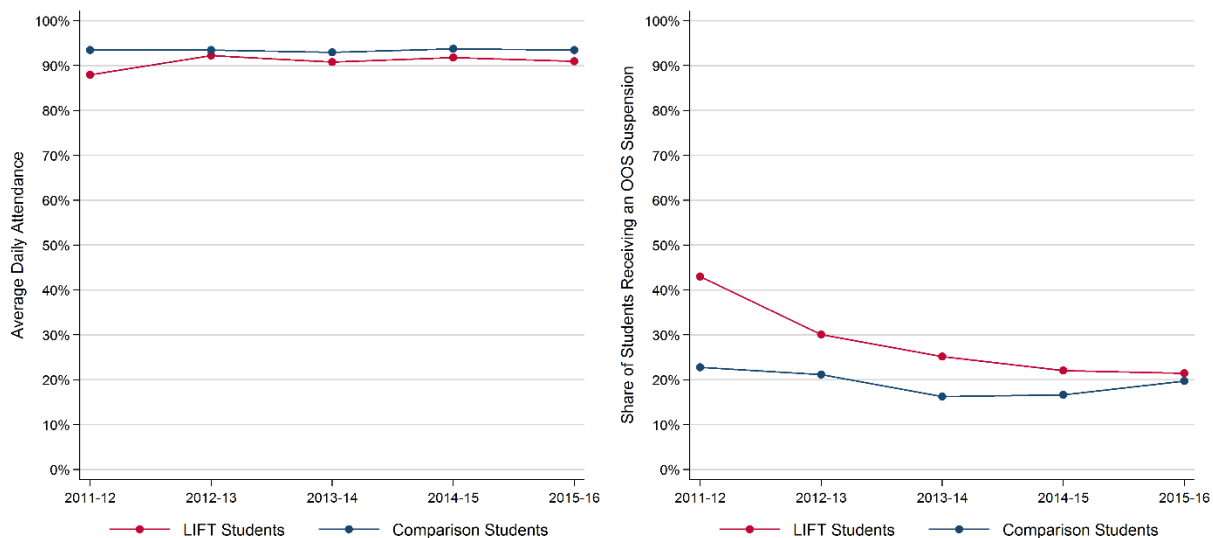
C. High School (Grades 9–12)

As of Year Four (2015-16) out-of-school suspensions of LIFT students decreased over the implementation years by a net total of 21.5%.



Results are summarized in Figure A3 and Table A3 below.

Figure A3. Trends in 9th – 12th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students



9th - 12th Grade

Table A3. Trends in 9th – 12th Grade Average Daily Attendance and Share of Students Receiving One or More Out-of-School Suspension in Percent, LIFT vs. Matched Comparison Students

TREND ANALYSIS: 9 TH -12 TH GRADE										
	AVERAGE DAILY ATTENDANCE					OUT OF SCHOOL SUSPENSIONS				
	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Pre-LIFT (2011-12)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	87.9%	92.2%	90.8%	91.8%	91.0%	43.0%	30.1%	25.2%	22.0%	21.5%
Comparison	93.5%	93.5%	92.9%	93.8%	93.5%	22.8%	21.1%	16.3%	16.6%	19.7%

- LIFT high school students made a substantial increase in Year One (2012-13) average daily attendance (ADA) rates by 4.3 percentage points.
 - Since Year One, ADA among both groups have been relatively stable, with comparison students' ADA remaining consistently higher than LIFT students.
- As of Year Four (2015-16) OSS among LIFT students had dropped nearly 20%.

Appendix B. Methodological Notes on Year Four Academic Outcomes Analysis

Key elements of the Year Four evaluation of the impact of LIFT on student achievement on the EOG and EOC assessments are described below.

A. Quasi-Experimental Design with Matched Student-Level Comparisons

In the Year Four evaluation, RFA applied a rigorous quasi-experimental design that yields difference-in-differences impact estimates of the LIFT treatment. This design used the 2012-13 school year (Year One of LIFT) as a baseline year and estimated the difference-in-differences impact of LIFT on student outcomes in years 2013-14, 2014-15, and 2015-16, compared to changes in matched comparison students' outcomes during the same period.

B. Study Samples

This evaluation utilized longitudinal data from two kinds of student samples: repeated cross-sectional samples and cohort samples. Repeated cross-sectional samples comprise all 3rd – 12th graders at LIFT schools and matched comparison students at non-LIFT schools between the 2012-13 and 2015-16 school years. Cohort samples include a group of LIFT and matched comparison students who entered 3rd or 6th grade at a LIFT or comparison school in 2012-13 and stayed at a LIFT or comparison school for the next two years.

Each analysis served different purposes. Findings from the repeated cross-sectional analysis provide a snapshot impact of LIFT based on all students who attended a LIFT school in a given year, whereas the longitudinal cohort analysis provides “dosage effects” of the LIFT treatment based on the same group of students who stayed at a LIFT or comparison school for all three years between 2012-13 and 2014-15.

Repeated Cross-Sectional Analysis

RFA grouped students into three grade bands (3-5, 6-8, and 9-12). The sample for each grade band includes all students who attended the LIFT schools from 2012-13 to 2015-16 and their matched comparisons. This approach differed from the Year Three analysis, in which we pooled together all 3rd – 8th graders. Breaking this group into smaller grade bands allowed us to examine differential effects of LIFT on the elementary and middle grades. Table B1 shows the number of LIFT and matched comparison students by grade band and by year. Note that the number of the LIFT and comparison students are the same each year because comparisons are matched at the student level.

Table B1. Number of LIFT and Matched Comparison Students included in Repeated Cross-Sectional Samples by Grade Band and by Year

GRADE BAND	SAMPLE	NUMBER OF STUDENTS			
		2012-13	2013-14	2014-15	2015-16
3rd - 5th	LIFT: Reading & math	1,019	1,166	1,251	1,446
	Matched Comparison: Reading & math	1,019	1,166	1,251	1,446
6th - 8th	LIFT: Reading & math	1,767	1,929	1,841	1,673
	Comparison: Reading & math	1,767	1,929	1,841	1,673
9th - 12 th	LIFT: Math I	386	463	519	375
	Matched Comparison: Math I	386	463	519	375
	LIFT: English II	344	408	434	374
	Matched Comparison: English II	344	408	434	374
	LIFT: Biology	332	433	432	346
	Matched Comparison: Biology	332	433	432	346

Longitudinal Cohort Analysis

RFA followed two cohorts (3rd and 6th-grade cohorts) of LIFT students and their matched comparison students beginning in 2012-13 for three years up to the 2014-15 school year. These cohort analyses allowed us to examine whether prolonged exposure to LIFT—e.g., “dosage”—had an effect on outcomes. Cohort analyses were not conducted for the high school population because they do not take the same test every year.

More about the cohort samples:

- We did not follow these students in 2015-16 because many of them dispersed to a large number of non-LIFT and non-comparison schools as the 3rd-grade cohort entered 6th grade and the 6th-grade cohort entered 9th grade.
- We further restricted these longitudinal cohort samples to those who stayed in the LIFT and comparison schools for all three years from 2012-13 through 2014-15.
- The 3rd-grade cohort sample contains 294 LIFT students and the same number of matched comparison students, and the 6-grade cohort sample contains 464 LIFT students and the same number of matched comparison students.

C. Propensity Score Matching

For both repeated cross-sectional and longitudinal cohort samples, we improved the comparability between the LIFT group and non-LIFT comparison group by identifying matched comparisons at the student level. Rather than comparing LIFT students’ academic performance to that of all students in the comparison schools, we used a propensity score matching approach to identify a group of students within the comparison schools that are more closely matched to the LIFT students.

For the repeated cross-sectional samples, LIFT students and comparison students were matched on demographic characteristics (gender, race/ethnicity, special education status, and Limited English

Proficient) and behavioral outcomes (attendance and out-of-school suspension). Since students in the repeated cross-sectional samples changed every year due to promotion to a higher grade, student mobility, or graduation, propensity score matching was performed each year to identify matched comparisons for ever-changing LIFT students. Table B2 compares the average demographic characteristics and behavioral outcomes between LIFT students and matched comparison students for the 2012-13 school year.

Table B2. Comparison of Average Demographic Characteristics and Behavioral Outcomes between LIFT and Matched Comparison Students, Repeated Cross-Sectional Samples, 2012-13

VARIABLE	3 RD – 5 TH		6 TH – 8 TH		9 TH – 12 TH	
	LIFT (N=1,019)	COMPARISON (N=1,019)	LIFT (N=1,767)	COMPARISON (N=1,767)	LIFT (N=344)	COMPARISON (N=344)
Female	50.9%	50.2%	51.4%	50.7%	43.3%	44.8%
Black	81.6%	81.8%	79.2%	78.6%	82.3%	82.3%
Hispanic	8.2%	8.6%	11.6%	11.6%	5.8%	6.4%
White	7.8%	7.6%	6.9%	7.6%	9.6%	9.3%
Race - Other	2.4%	2.0%	2.3%	2.2%	2.3%	2.0%
Special Education	12.1%	12.9%	15.7%	17.0%	10.2%	10.8%
Limited English Proficient	10.4%	10.9%	14.7%	15.7%	14.8%	13.7%
Average Daily Attendance	95.8%	95.4%	94.8%	94.6%	92.9%	93.0%
Percentage of Students Receiving Out-of-School Suspension	20.6%	22.5%	31.6%	32.3%	28.2%	29.4%

- Due to propensity score matching, LIFT and matched comparison students are similar in terms of the demographic characteristics and behavioral measures.

As explained above, the 3rd and 6th grade cohort samples followed the same group of students over time, beginning in the 2012-13 school year. For these samples, LIFT and comparison students were matched on all of the demographic and behavioral variables as well as their Reading and Math EOG assessment scores. Again, averages for these matching variables between the LIFT and comparison groups are very close (See Table B3).

Table B3. Comparison of Average Demographic Characteristics, Behavioral Outcomes, and Academic Outcomes between LIFT and Matched Comparison Students, 3rd and 6th Grade Cohort Samples, 2012-13

VARIABLE	3 RD GRADE COHORT		6 TH GRADE COHORT	
	LIFT (N=294)	COMPARISON (N=294)	LIFT (N=464)	COMPARISON (N=464)
Female	50.7%	46.3%	51.1%	52.6%
Black	81.3%	83.7%	76.1%	76.1%
Hispanic	10.5%	11.9%	15.5%	13.6%
White	1.4%	2.0%	1.9%	2.6%
Race - Other	6.8%	2.4%	6.5%	7.8%
Special Education	7.8%	7.8%	16.2%	14.0%
Limited English Proficient (LEP)	9.9%	12.9%	19.8%	20.3%
Average Daily Attendance	95.6%	95.6%	95.8%	95.9%
Percentage of Students Receiving Out-of-School Suspension	22.4%	12.6%	32.1%	31.3%
Reading Scale Score	-0.2	-0.2	-0.1	-0.0
Math Scale Score	-0.1	-0.1	0.0	0.0

While LIFT and comparison students were closely matched, the LIFT 3rd grade cohort sample had a higher proportion of students belonging to the other-race group and a slightly lower proportion of LEP students than their matched comparisons.

D. Addressing the Issue of Student Mobility

The Year Three Student Outcomes Memo reported notable student mobility in the LIFT schools. For example, only 50% of 3rd through 8th graders who began in LIFT schools in 2012-13 were still in a LIFT school in 2014-15. This could potentially threaten the validity of LIFT impact estimates under the following circumstances:

- If student mobility alters the underlying characteristics of the LIFT and/or comparison student samples; and/or
- If students at the LIFT schools move to a comparison school (sample contamination).

We address these issues of student mobility in two ways. First, in the repeated cross-sectional samples, students who moved from a LIFT school to a comparison school were dropped from the comparison data to prevent sample contamination. Second, the longitudinal cohort samples only included students who stayed in LIFT or comparison schools for all three years from 2012-13 through 2014-15. By following students who stayed in the LIFT or comparison schools for three consecutive years (grades 3-5 and 6-8), we can rule out the effects of student mobility and thus more accurately estimate the dosage effects of LIFT treatment on student outcomes in years 2013-14 and 2014-15.

E. Academic Achievement Measures

Standardized Scale Scores

We converted the End of Grade (EOG) and End of Course (EOC) state assessment scale scores into standardized test scores (z-scores) so that we could pool student test scores across different grades.

Student scale scores were standardized against the grade specific means and standard deviations computed from all students in the LIFT and comparison schools.

Proficiency and College and Career Readiness (CCR)

Prior to the 2013-14 academic year, the North Carolina Department of Public Instruction added a fifth performance level to the EOG and EOC assessments, creating two separate scales for Year One (2012-13) and all subsequent years of the LIFT initiative (see Table B4).

Table B4. North Carolina EOG/EOC Proficiency Levels: 2012-13 and Subsequent Years

2012-13 PERFORMANCE LEVELS	2013-14 & 2015-16 PERFORMANCE LEVELS
Level 1: Limited Command of Knowledge and Skills	Level 1: Limited Command of Knowledge and Skills
Level 2: Partial Command of Knowledge and Skills	Level 2: Partial Command of Knowledge and Skills
	Level 3: Sufficient Command of Knowledge and Skills*
Level 3: Solid Command of Knowledge and Skills	Level 4: Solid Command of Knowledge and Skills
Level 4: Superior Command of Knowledge and Skills	Level 5: Superior Command of Knowledge and Skills

 Proficiency represented in these levels
 *Newly added performance level

Using this updated performance scale, the state identified students performing at Level 3 as proficient in 2013-14 and 2014-15, whereas in previous years they were considered basic. Due to this change in the state proficiency scale, a valid comparison of the percentage of students who scored proficient or higher can be made only between Years Two (2013-14) and Three (2014-15) of the LIFT initiative. To make the 2012-13 proficiency levels comparable to those from 2013-14 through 2015-16, we rescaled the 2012-13 proficiency levels into a five-point scale by applying the new proficiency thresholds.

The College and Career Readiness scale was not affected by this change. Beginning in 2013-14, Levels 4 and 5 represented students who were on the way to College and Career Readiness, which were equivalent to Levels 3 and 4 from 2012-13. Thus, we can validly assess changes in the percentage of students who were College and Career Ready across all three years of the LIFT initiative, 2012-13 through 2015-16.

Appendix C. Trend Analysis of Student Academic Outcomes: 3rd–5th Grade Repeated Cross-Sectional Sample

A. Reading EOG

Figure C1 and Table C1 present trends in 3rd-5th grade LIFT and comparison students' Reading EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure C1. Trends in 3rd-5th Graders' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

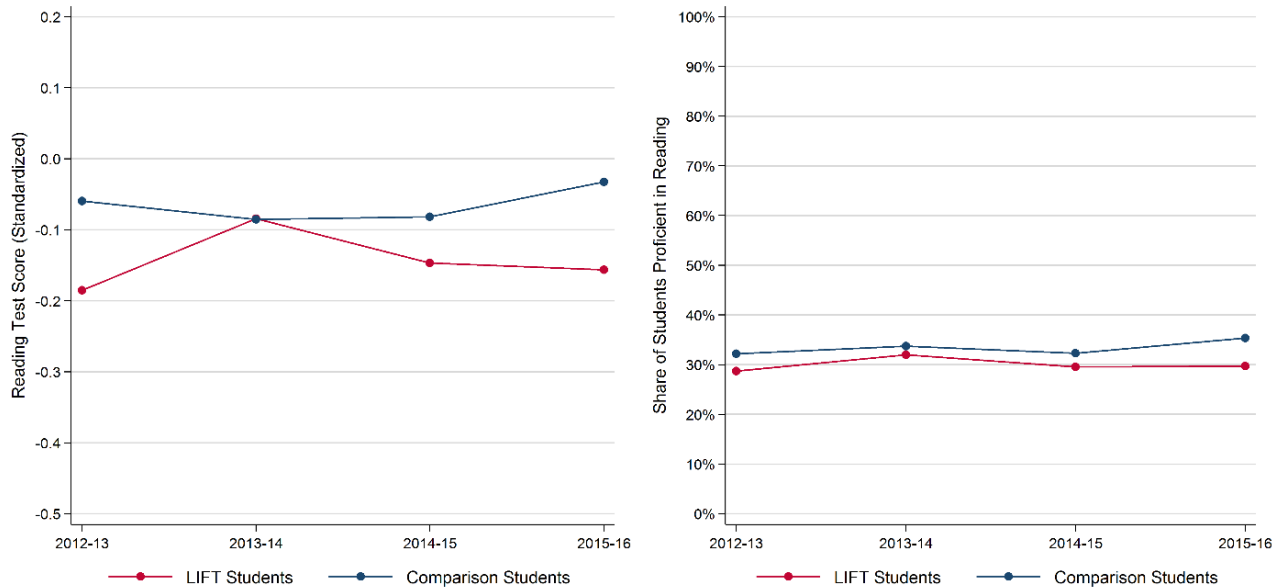


Table C1. Trends in 3rd-5th Graders' Performance on Reading EOG Subject Test: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 3 RD -5 TH GRADE READING EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.19	-0.08	-0.15	-0.15	28.7%	32.0%	29.6%	29.7%
Comparison	-0.06	-0.09	-0.08	-0.03	32.2%	33.7%	32.3%	35.4%

- The gap between LIFT and matched comparison students on the Reading EOG was closed in Year Two (2011-12) but reemerged in Year Three (2014-15) and Year Four (2015-16) of LIFT.
- LIFT students and comparison students made similar gains in Reading scale scores in Year Three (2014-2015) and Year Four (2015-2016) of LIFT.
- The percentage of LIFT students performing at or above proficiency remained below that of matched comparison students during all four years of LIFT.

- In Year Three (2014-15) and Year Four (2015-16), the percentage of LIFT students who were on the Reading EOG dropped below 30% while matched comparison students remained above 30%.

B. Math EOG

Figure C2 and Table C2 present trends in 3rd-5th grade LIFT and comparison students' Math EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure C2. Trends in 3rd – 5th Graders' Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

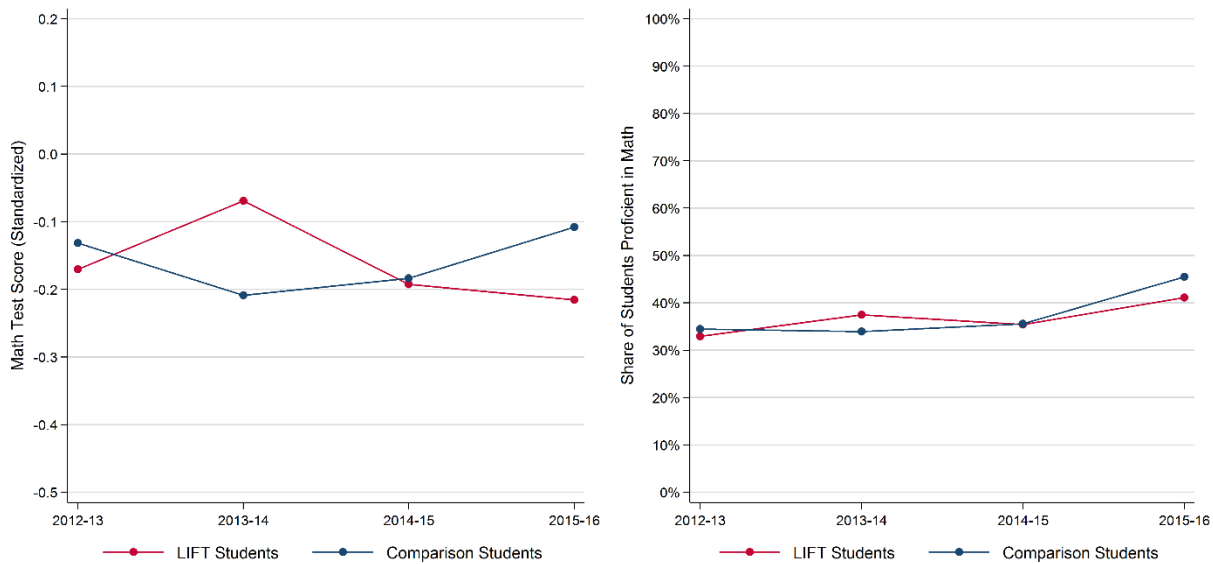


Table C2. Trends in 3rd-5th Graders' Performance on Math EOG Subject Test: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 3 RD -5 TH GRADE MATH EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.17	-0.07	-0.19	-0.22	33.0%	37.5%	35.5%	41.1%
Comparison	-0.13	-0.21	-0.18	-0.11	34.5%	33.9%	35.6%	45.5%

- In Year Two (2013-14), LIFT students outperformed matched comparison students across both measures.
- In Year Three (2014-15) and Year Four (2015-16), LIFT standardized scale scores decreased.
- In Year Four, LIFT standardized scale scores were approximately one point lower than that of matched comparison students.
- The percentage of LIFT students who were proficient was slightly lower than that of matched comparison students in Year One (2012-13).

- In Year Two (2013-14), LIFT students experienced a 4.5 percentage point increase in math proficiency rates.
- In Year Three (2014-15), the gap between LIFT and matched comparison students' proficiency rates reemerged, but proficiency rates for both groups rose in Year Four (2015-16).

C. 5th Grade Science EOG

The Science EOG trend analyses is limited to students in the 5th grade for each corresponding year of the initiative. Figure C3 and Table C3 represent trends in 5th grade LIFT and comparison students' average standardized scale scores as well as the percentage of 5th grade LIFT and comparison students who scored proficient or higher on the Science EOG over time.

Figure C3. Trends in 5th Graders' Performance on Science EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

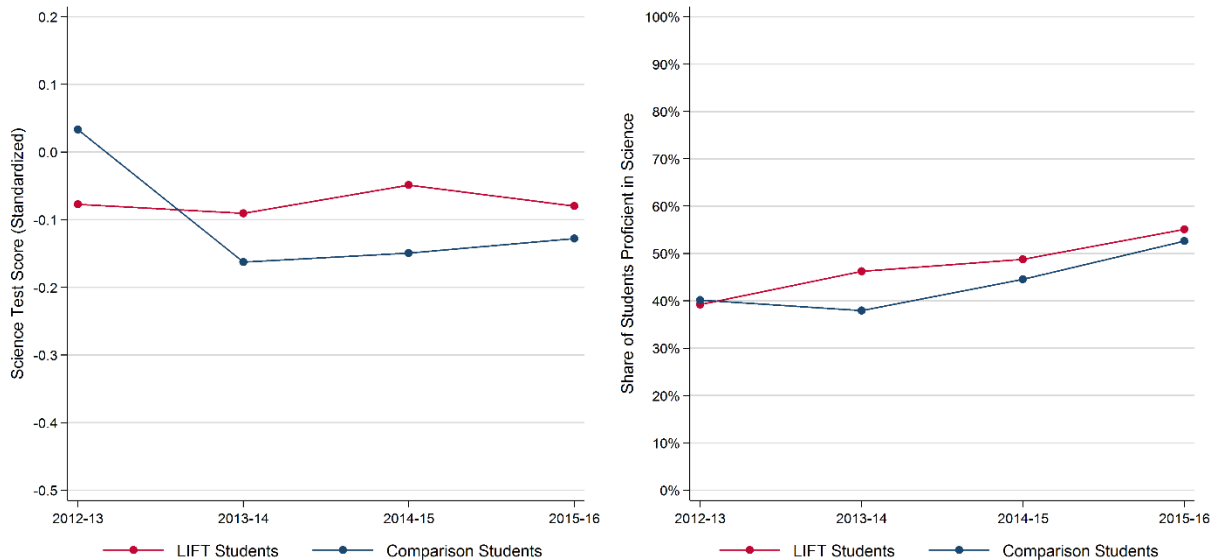


Table C3. Trends in 5th Graders' Performance on Science EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 5 TH GRADE SCIENCE EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.08	-0.09	-0.05	-0.08	39.3%	46.3%	48.8%	55.1%
Comparison	.03	-.16	-.15	-.13	40.2%	38.0%	44.6%	52.6%

- 5th grade LIFT students outperformed matched comparison students in Year Two (2013-14) through Year Four (2015-16) of the initiative.
- Proficiency rates of LIFT students increased at a higher rate than matched comparison students over time.

Appendix D. Trend Analysis of Student Academic Outcomes: 3rd Grade Longitudinal Cohort Sample

A. Reading EOG

Figure D1 and Table D1 present trends in both the 3rd grade LIFT and comparison cohort students' Reading EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure D1. Trends in 3rd-Grade Cohort Students' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency, 2012-13 through 2014-15

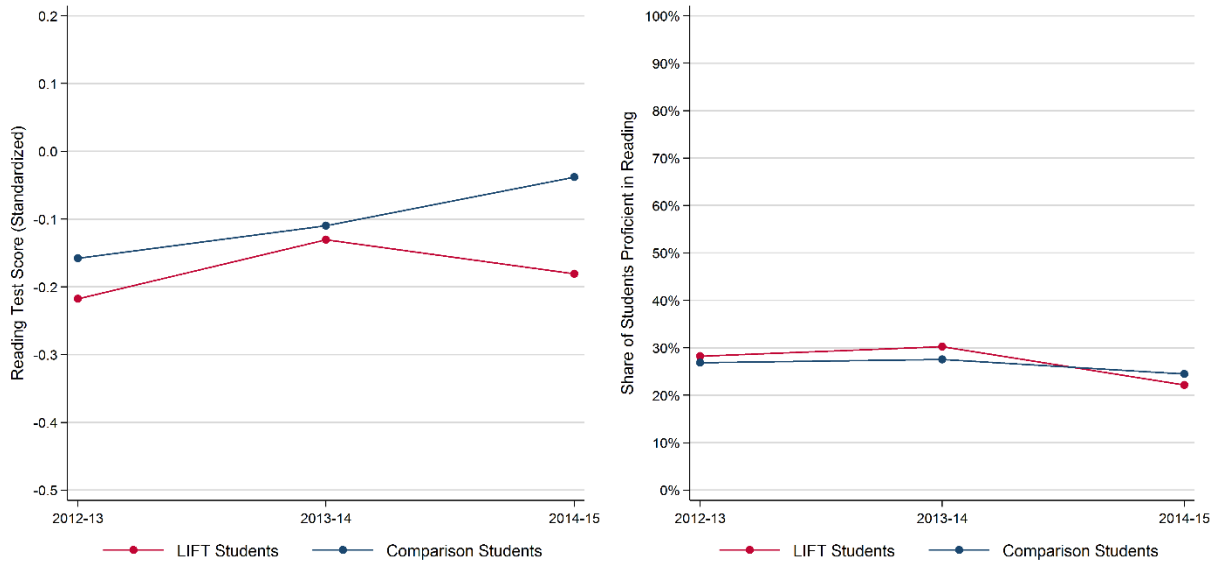


Table D1. Trends in 3rd-Grade Cohort Students' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency, 2012-13 through 2014-15

DESCRIPTIVE TREND ANALYSIS: 3 RD GRADE COHORT READING EOG						
	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)
LIFT	-0.22	-0.13	-0.18	28.2%	30.3%	22.2%
Comparison	-0.16	-0.11	-0.04	26.9%	27.6%	24.5%

- The 3rd-grade LIFT cohort had lower Reading EOG standardized scale scores than matched comparison students from Year One (2012-13) to Year Three (2014-15) of the initiative.
- In Year Two (2013-14), the difference between LIFT and comparison students' standardized scale scores decreased to only 0.02 scale score points.
- In Year Three (2014-15), the difference between LIFT and matched comparison students' scale scores re-emerged.
- Proficiency levels of the 3rd-grade LIFT cohort and comparison cohorts were close in proximity during Years One (2012-13) through Three (2014-15) of LIFT.
- 3rd-grade LIFT cohort students' proficiency levels were slightly higher than those of matched comparison students in both Year One (2012-13) and Year Two (2013-14) of LIFT.

- In Year Three (2014-15), 3rd-grade LIFT cohort students' proficiency levels dropped by 8.1 percentage points.

B. Math EOG

Figure D2 and Table D2 present trends in both the 3rd grade LIFT and comparison cohort students' Math EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure D2. Trends in 3rd Grade Cohort Students' Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency, 2012-13 through 2014-15

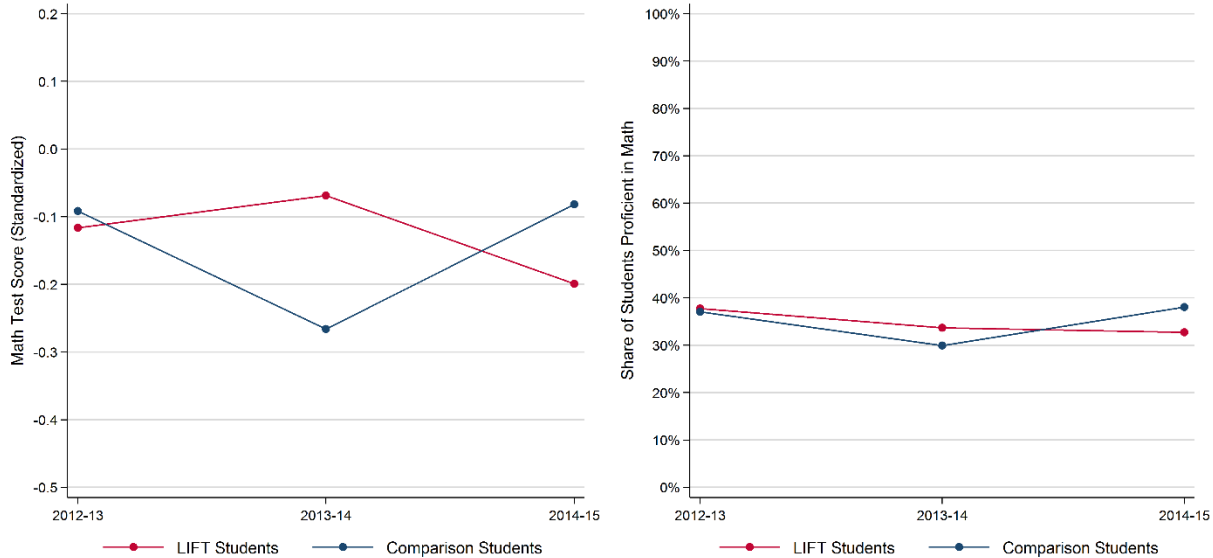


Table D2. Trends in 3rd Grade Cohort Students' Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency, 2012-13 through 2014-15

DESCRIPTIVE TREND ANALYSIS: 3 RD GRADE COHORT MATH EOG						
	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)
LIFT	-.12	-.07	-.20	37.8%	33.7%	32.8%
Comparison	-.09	-.26	-.08	37.1%	29.9%	38.1%

- Math scale scores were inconsistent.
- The 3rd grade LIFT cohort's Math proficiency levels steadily decreased over the course of the initiative.

Appendix E. Trend Analysis of Student Academic Outcomes: 6th–8th Grade Repeated Cross-Sectional Sample

A. Reading EOG

Figure E1 and Table E1 present trends in 6th–8th grade LIFT and comparison students' Reading EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure E1. Trends in 6th–8th Graders' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency.

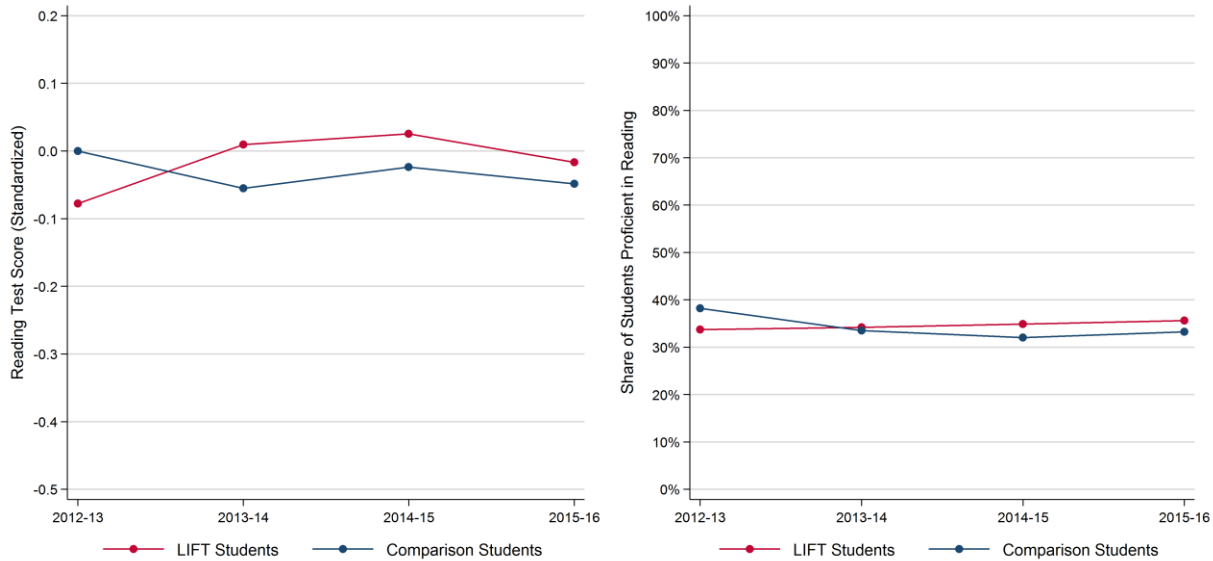


Table E1. Trends in 6th–8th Graders' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 6 TH -8 TH GRADE READING EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.08	0.01	0.03	-0.02	33.8%	34.2%	34.9%	35.6%
Comparison	0.00	-0.06	-0.02	-0.05	38.2%	33.5%	32.0%	33.3%

- LIFT students' Reading EOG standardized scale scores increased over the first three years of LIFT, but decreased slightly in Year Four (2015-16).
- LIFT students outperformed matched comparison students during Year Two (2013-14) to Year Four (2015-16) of the initiative.
- Starting in Year Two (2013-14), LIFT students achieved higher proficiency levels than matched comparison students.

B. Math EOG

Figure E2 and Table E2 present trends in 6th–8th grade LIFT and comparison students’ standardized scale scores and the percentage of students who scored proficient or higher on the Math EOG over time.

Figure E2. Trends in 6th–8th Graders’ Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

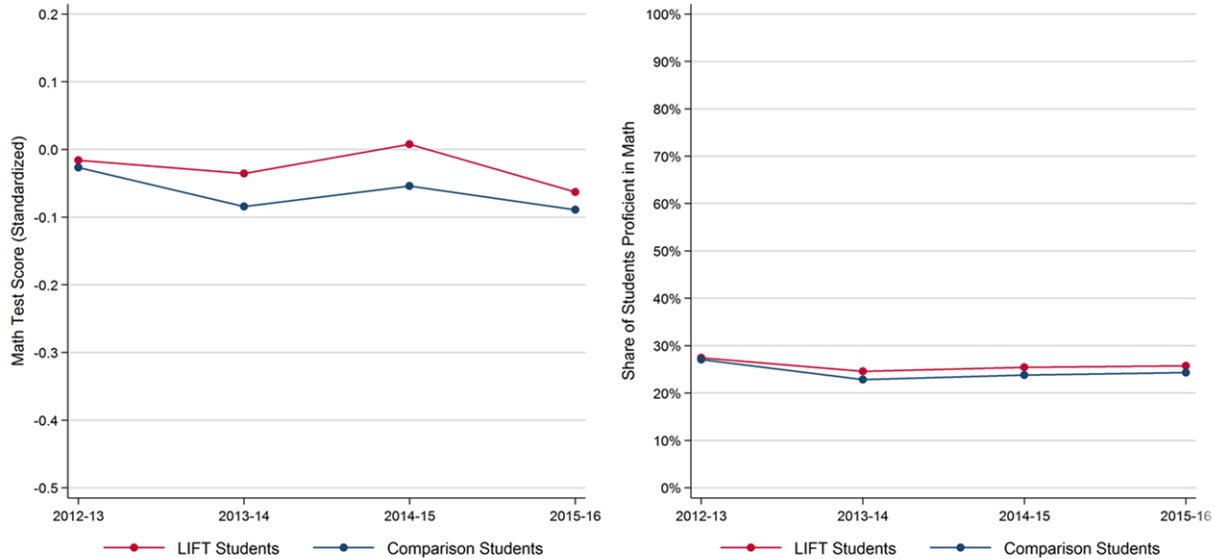


Table E2. Trends in 6th–8th Graders’ Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 6 TH -8 TH GRADE MATH EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.02	-0.04	0.01	-0.06	27.5%	24.6%	25.4%	25.8%
Comparison	-0.03	-0.08	-0.05	-0.09	27.1%	22.9%	23.8%	24.3%

- 6th-8th grade LIFT students’ math EOG standardized scale scores have fluctuated since Year One (2012-13).
- 6th-8th grade LIFT student math EOG standardized scale scores have been consistently higher than comparison students’ scale scores.
- LIFT and comparison students showed similar trends in Math EOG proficiency levels from Year One (2012-13) through Year Four (2015-16).
- LIFT students’ proficiency levels have remained slightly higher than comparison students’ proficiency levels.

C. 8th Grade Science EOG

The Science EOG trend analysis is limited to students in the 8th grade for each corresponding year of the initiative. Figure E3 and Table E3 represent trends in 8th grade LIFT and comparison students' average standardized scale scores the percentage of 8th grade LIFT and comparison students who scored proficient or higher on the Science EOG over time.

Figure E3. Trends in 8th Graders' Performance on Science EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

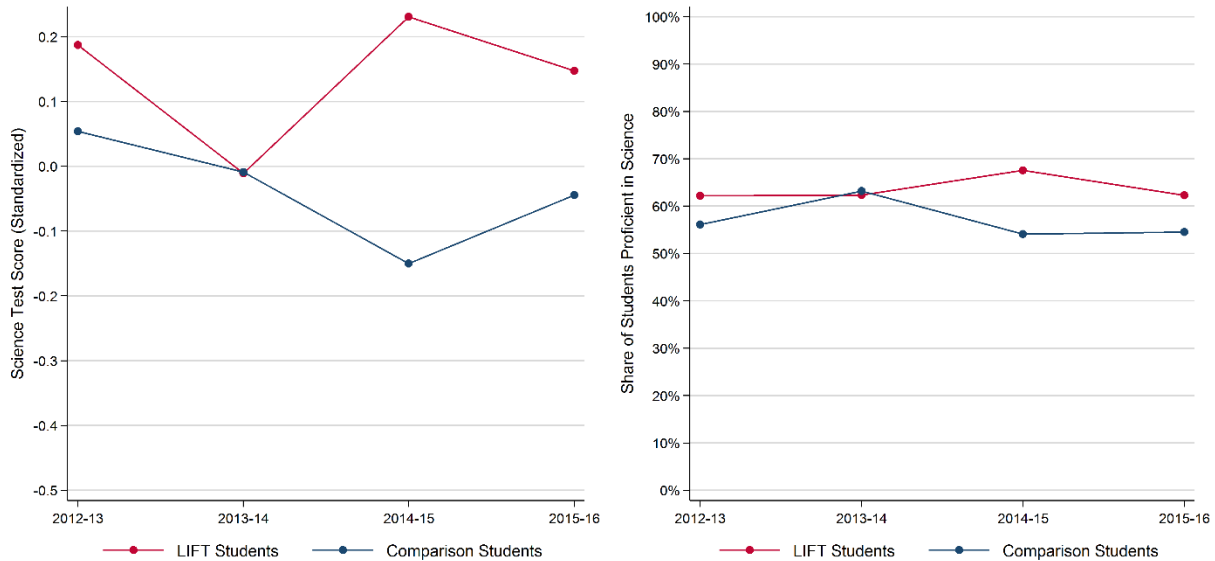


Table E3. Trends in 8th Graders' Performance on Science EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 8 TH GRADE SCIENCE EOG								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	0.19	-0.01	0.23	0.15	62.2%	62.4%	67.6%	62.3%
Comparison	0.05	-0.01	-0.15	-0.04	56.1%	63.2%	54.1%	54.5%

- 8th grade LIFT students Science EOG standardized scale scores fluctuated from the start of the LIFT initiative.
- 8th grade LIFT students Science EOG proficiency levels have remained above 62% (2014-15).

Appendix F. Trend Analysis of Student Academic Outcomes: 6th Grade Longitudinal Cohort Sample

A. Reading EOG

Figure F1 and Table F1 present trends in both the 6th grade LIFT and comparison cohort students' Reading EOG standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure F1. Trends in 6th Grade Cohort Students' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

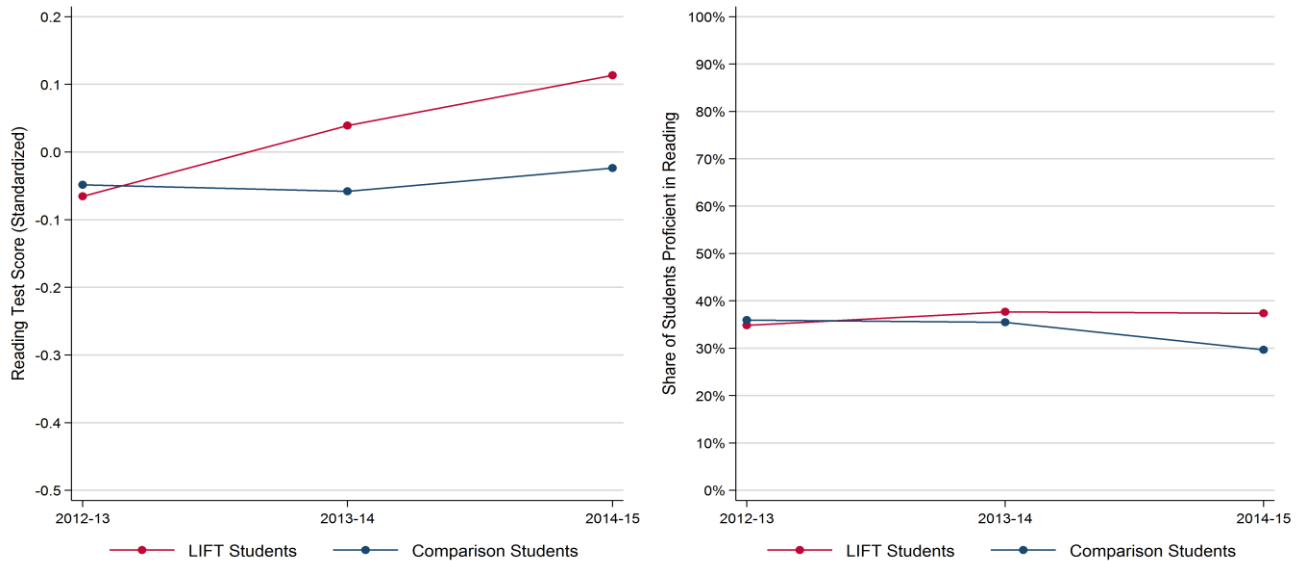


Table F1. Trends in 6th Grade Cohort Students' Performance on Reading EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 6 TH GRADE COHORT READING EOG						
	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)
LIFT	-0.07	0.04	0.11	34.9%	37.7%	37.4%
Comparison	-0.05	-0.06	-0.02	35.9%	35.5%	29.7%

- The 6th grade LIFT cohort's Reading EOG scale scores steadily increased from Year One (2012-13) to Year Three (2014-15).
- In Year Four (2014-15), the gap between the 6th grade LIFT cohort and comparison students widened to its largest point in three years: 0.13 points.
- 6th grade LIFT cohort students' Reading EOG proficiency levels increased from Year One (2012-13) to Year Three (2014-15).
- The 6th-grade LIFT cohort had higher levels of proficiency in Year Two (2013-14) and Year Three (2014-15).

B. Math EOG

Figure F2 and Table F2 present trends in 6th grade cohort LIFT and comparison students' standardized scale scores and the percentage of students who scored proficient or higher on the Math EOG over time.

Figure F2. Trends in 6th Grade Cohort Students' Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

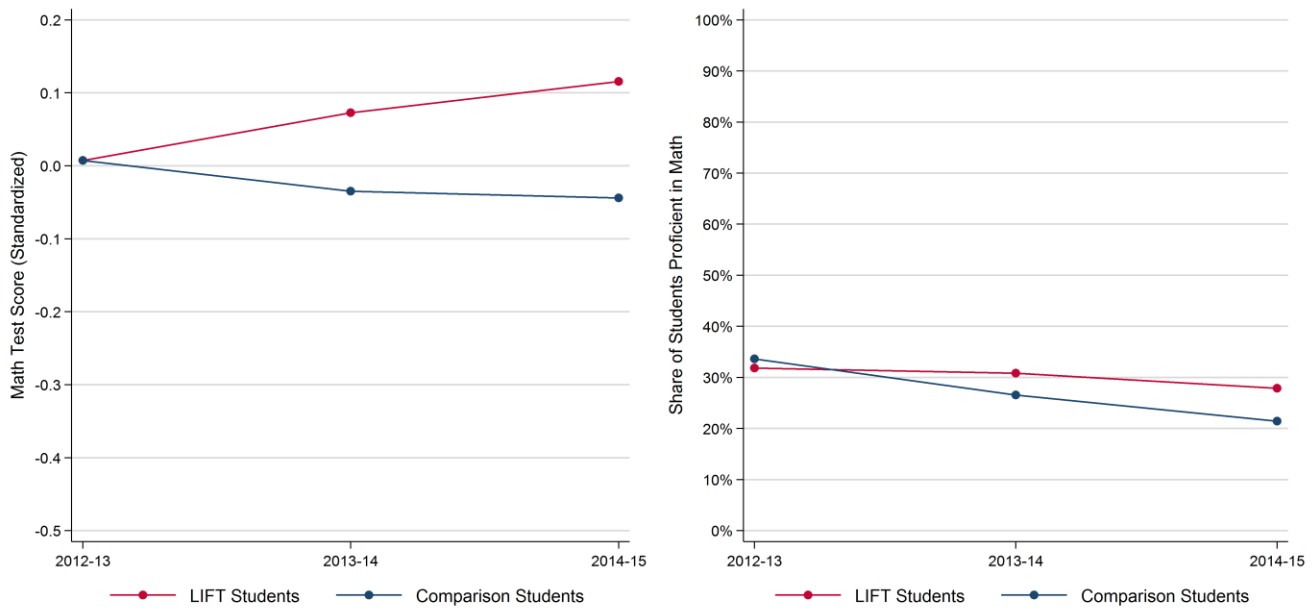


Table F2. Trends in 6th Grade Cohort Students' Performance on Math EOG: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 6 TH GRADE COHORT MATH EOG						
	STANDARDIZED SCALE SCORE			PROFICIENCY RATE		
	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)	Y1 (2012-13)	Y2 (2013-14)
LIFT	0.01	0.07	0.12	31.8%	30.8%	27.9%
Comparison	0.01	-0.03	-0.04	33.6%	26.6%	21.4%

- Math EOG standardized scale scores increased in Year Two (2013-14) and Year Three (2014-15).
- The 6th grade LIFT cohort continued to have higher Math EOG standardized scale scores than the matched comparison group
- Both 6th grade LIFT and comparison cohorts Math EOG proficiency level decreased each year.
- The 6th-grade LIFT cohort had higher levels of proficiency in Year Two (2013-14) and Year Three (2014-15).
- However, both groups had low proficiency rates overall—fewer than 1 in 3 LIFT or comparison students achieved Math EOG proficiency in 2014-15.

Appendix G. Trend Analysis of Student Academic Outcomes: 9th-12th Grade Repeated Cross-Sectional Sample

A. English II EOC

Figure G1 and Table G1 present trends in 9th-12th grade LIFT and comparison students' English II EOC standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure G1. Trends in 9th-12th Graders' Performance on English II EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

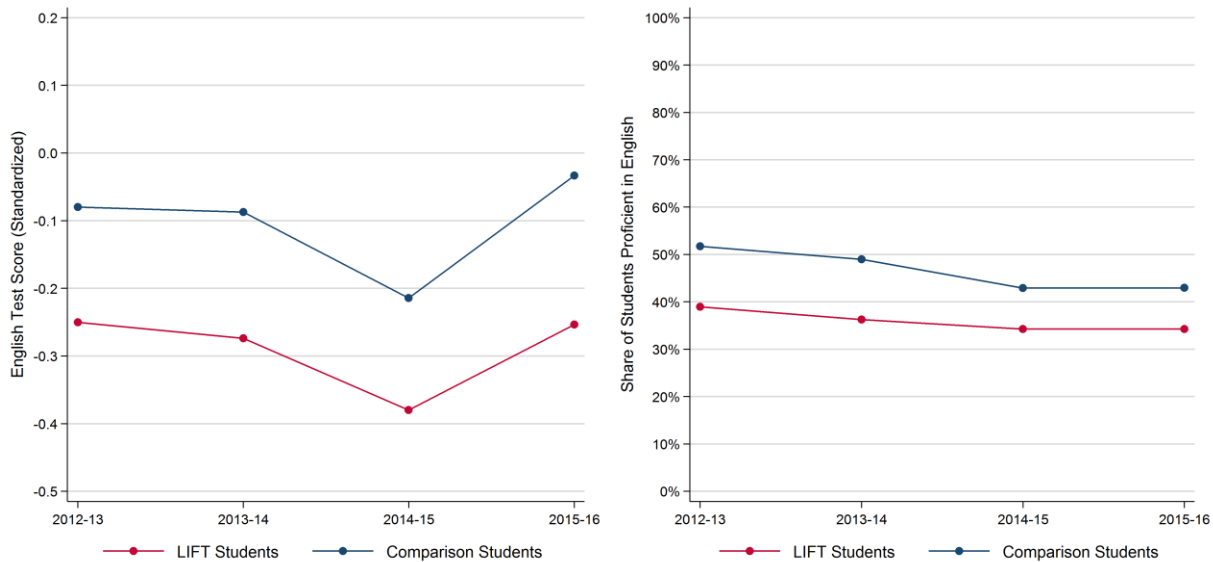


Table G1. Trends in 9th - 12th Graders' Performance on English II EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 9 TH -12 TH GRADE ENGLISH II EOC								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.25	-0.27	-0.38	-0.25	39.0%	36.3%	34.3%	34.3%
Comparison	-0.08	-0.09	-0.21	-0.03	51.7%	49.0%	42.9%	43.0%

- LIFT students' standardized scale scores remained well below those of the comparison students.
- LIFT high school students' English II EOC standardized scale scores declined in Year Two (2013-14) and Year Three (2014-15) but increased in Year Four (2015-16).
- The gap between proficiency rates narrowed from 11.7 percentage points in Year One (2012-13) to 8.7 percentage points in Year Four (2015-16).
- LIFT high school students' English II EOC proficiency rate declined for two consecutive years (Years One and Two) and held steady during Years Three (2014-15) and Four (2015-16).

B. Math I EOC

Figure G2 and Table G2 represent 9th-12th grade LIFT and Comparison students' standardized scale scores and proficiency rates on the Math I EOC over time.

Figure G2. Trends in 9th – 12th Graders' Performance on Math I EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

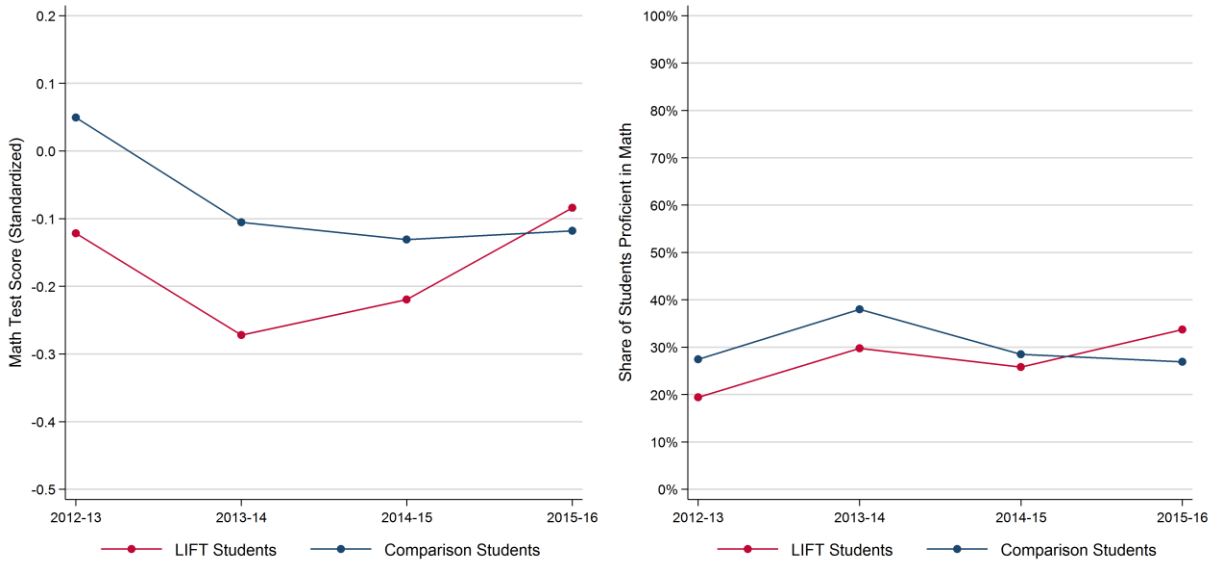


Table G2. Trends in 9th – 12th Graders' Performance on Math I EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 9 TH –12 TH GRADE MATH I EOC								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.12	-0.27	-0.22	-0.08	19.4%	29.8%	25.8%	33.7%
Comparison	0.05	-0.11	-0.13	-0.12	27.5%	38.0%	28.5%	26.9%

- LIFT high school students outperformed matched comparison students' scale scores in Year Four (2015-16).
- After an initial decline in Year One (2012-13), LIFT high school students' Math I EOC standardized scale scores increased from Year Two (2013-14) to Year Four (2015-16).
- In Year Four (2015-16), LIFT students' proficiency rates surpassed comparison students'.

C. Biology EOC

Figure G3 and Table G3 presents trends in 9th-12th grade LIFT and comparison students' Math I EOC standardized scale scores and the percentage of students who scored proficient or higher over time.

Figure G3. Trends in 9th-12th Graders' Performance on Biology EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

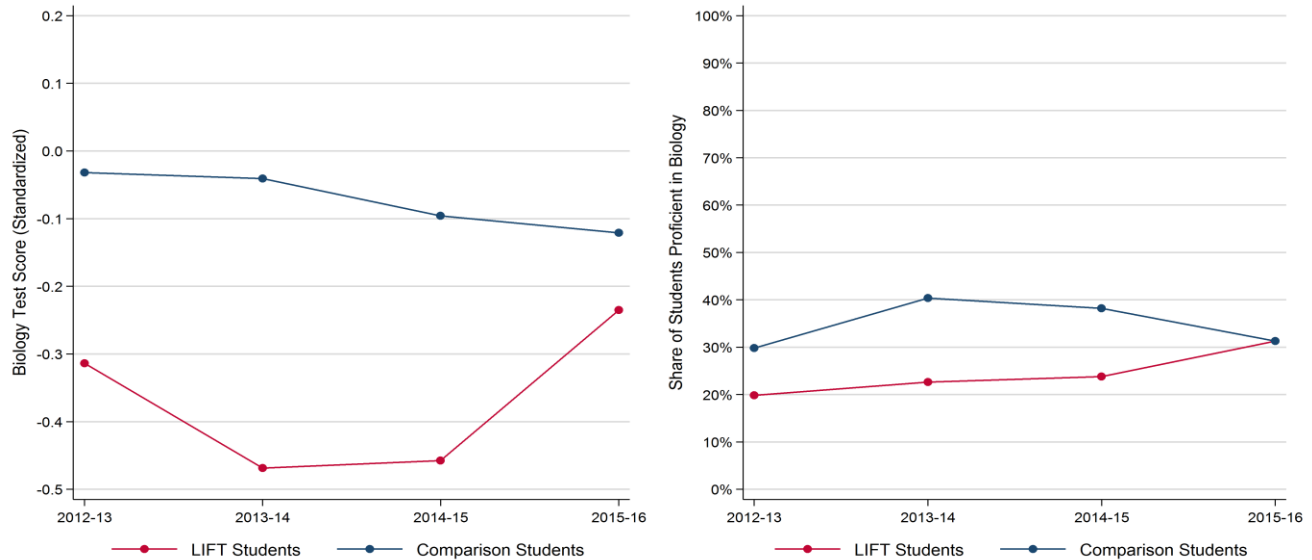


Table G3. Trends in 9th-12th Graders' Performance on Biology EOC: Average Standardized Scale Scores and Share of Students Achieving Proficiency

DESCRIPTIVE TREND ANALYSIS: 9 TH -12 TH GRADE BIOLOGY EOC								
	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)	Y1 (2012-13)	Y2 (2013-14)	Y3 (2014-15)	Y4 (2015-16)
LIFT	-0.31	-0.47	-0.46	-0.24	19.9%	22.6%	23.8%	31.3%
Comparison	-0.03	-0.04	-0.10	-0.12	29.8%	40.4%	38.2%	31.3%

- Over the course of the LIFT initiative, LIFT high schoolers' Biology EOC standardized scale scores have remained below comparison students.
- Since Year One (2012-13), LIFT students' Biology EOC proficiency rate continued to increase, but fewer than one in three LIFT students achieved proficiency in Year Four (2015-16).
- During Years One (2012-13) through Three (2014-15), LIFT students' Biology EOC proficiency rates were well below comparison students' proficiency rates. In Year Four (2015-16), LIFT and comparison students were equally likely to achieve proficiency.

Appendix H. Comparisons of Student Achievement between CLC and Non-CLC LIFT schools



LIFT schools that adopted CLCs had lower academic student performance prior to the implementation of CLCs.

In the year prior to the implementation of CLC (2012-13), the academic performances of four LIFT schools that adopted CLCs the following year were substantially below those of LIFT schools that did not adopt CLCs. Students attending the CLC 180 schools had the lowest 3rd-5th and 6th-8th grade performance on the Reading and Math EOG assessments within the LIFT learning community.

Figure H1. Scale Score and Proficiency Level in the Reading and Math EOG Assessments Prior to the Implementation of CLCs: 3rd-5th Grade

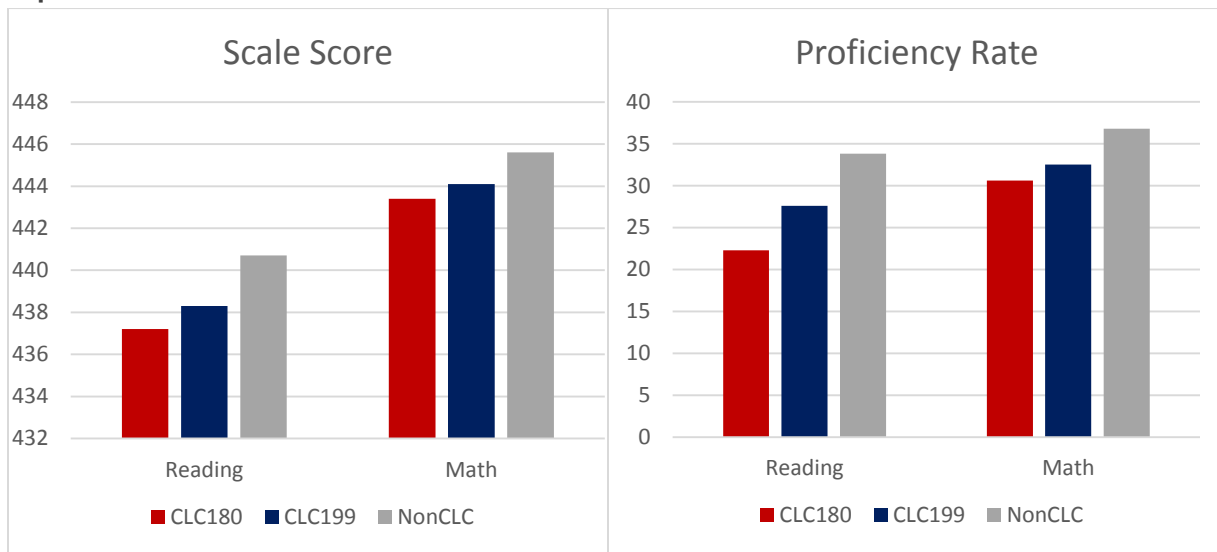
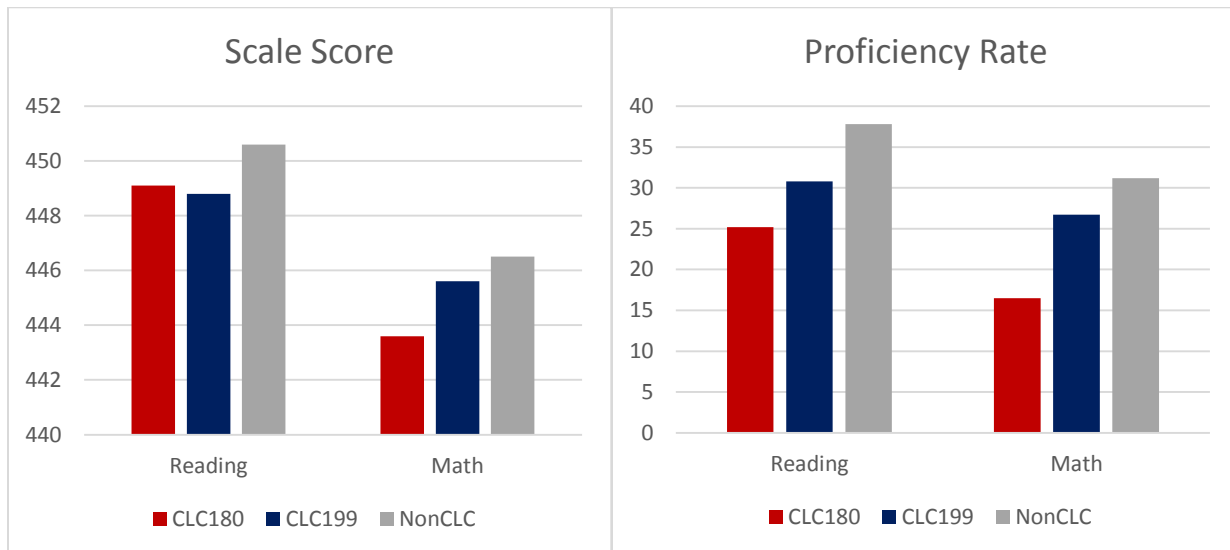


Figure H2. Scale Score and Proficiency Level in the Reading and Math EOG Assessments Prior to the Implementation of CLCs: 6th-8th Grade



- Students attending the CLC 180 schools had the lowest 3rd–5th and 6th–8th grade performance on the Reading and Math EOG assessments within the LIFT learning community.
- Students attending the CLC 199 schools had a slightly higher 3rd–5th and 6th–8th grade performance on the Reading and Math EOG assessments than those of the CLC 180 schools but had a substantially lower performance than students attending the Non-CLC LIFT schools.



Growth of student achievement on the Reading and Math EOGs was lower at the CLC 180 and CLC 190 schools compared to that of students at non-CLC LIFT schools.

Table H1. Growth in Student Performance on the Reading EOG between 2012-13 and 2015-16, CLC vs. Non-CLC LIFT Students

READING EOG						
	SCALE SCORE			PROFICIENCY RATE		
	2012-13	2015-16	DIFFERENCE	2012-13	2014-15	DIFFERENCE
3RD – 5TH GRADE						
LIFT CLC 180	437.2	436.7	-0.5	22.3%	25.0%	2.7%
LIFT CLC 199	438.3	438.2	-0.1	27.6%	28.8%	1.2%
LIFT Non-CLC	440.7	439.1	-1.6***	33.8%	33.0%	-0.8%
6TH – 8TH GRADE						
LIFT CLC 180	449.1	445.8	-3.3***	16.9%	21.6%	5.7%
LIFT CLC 199	448.8	447.8	-1.0	18.5%	29.8%	11.3%***
LIFT Non-CLC	450.6	450.7	0.1	25.2%	40.7%	15.5%***

* p<.10; ** p<.05; *** p<.01

- On the 3rd–5th grade Reading EOG, neither CLC nor Non-CLC LIFT students showed significant gains in scale or proficiency scores between 2012-13 and 2015-16.
- On the 6th–8th grade Reading EOG, Non-CLC and CLC 199 students showed significantly positive gains in the percentage of students achieving proficiency.

Table H2. Growth in Student Performance on the Math EOG between 2012-13 and 2015-16, CLC vs. Non-CLC Students

MATH EOG						
	SCALE SCORE			PROFICIENCY RATE		
	2012-13	2015-16	DIFFERENCE	2012-13	2014-15	DIFFERENCE
3RD – 5TH GRADE						
LIFT CLC 180	443.4	441.4	-2.0***	30.6%	24.2%	-6.4**
LIFT CLC 199	444.1	444.8	0.7	32.5%	36.9%	4.4%
LIFT Non-CLC	445.6	448.1	2.5***	36.8%	53.5%	16.7%***
6TH – 8TH GRADE						
LIFT CLC 180	443.6	440.3	-3.3***	16.5%	9.1%	-7.4%***
LIFT CLC 199	445.6	443.4	-2.2***	26.6%	19.8%	-6.8%**
LIFT Non-CLC	446.5	446.5	0.0	31.3%	32.2%	0.9%

* p<.10; ** p<.05; *** p<.01

- On the 3rd–5th grade Math EOG, CLC 180 students' average scale score, and percent achieving proficiency, significantly decreased between 2012-13 and 2015-16, whereas non-CLC students made significant gains. There have been no significant changes in CLC 199 students' performance on the Reading EOG during this same period.
- On the 6th–8th grade math EOG, both scale scores and the percentage of students achieving proficiency significantly declined in the CLC 180 and CLC 199 schools, while non-CLC students' performance remained unchanged between 2012-13 and 2015-16.

The descriptive analysis presented above show that both the initial level and growth of student achievement on the Reading and Math EOGs are lower at the CLC 180 and CLC 190 schools than those of students at non-CLC LIFT schools.

Appendix I. Descriptive Analysis of the Trends in Student Performance on the Reading and Math EOGs, LIFT CLC Students vs. Matched Comparisons at Non-LIFT Schools

Figure I1. Comparison of Trends in 3rd – 5th Grade Achievement in Reading EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

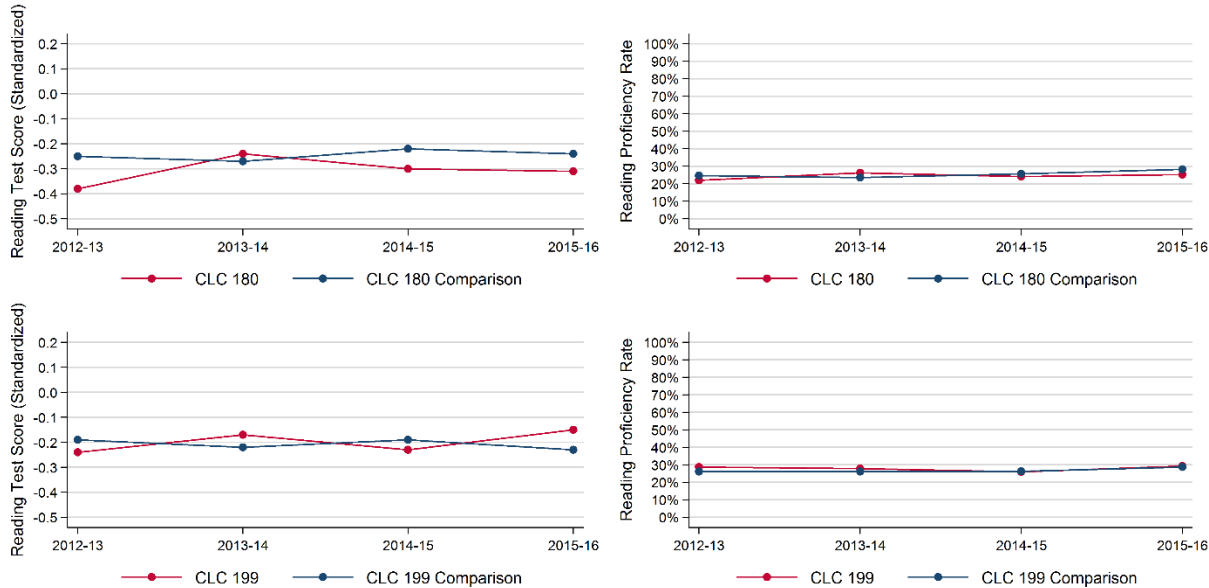


Table I1. Comparison of Trends in 3rd–5th Grade Achievement in Reading EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
CLC 180	-0.38	-0.24	-0.30	-0.31	21.9%	26.2%	24.1%	25.2%
CLC 180 Comparison	-0.25	-0.27	-0.22	-0.24	24.7%	23.5%	25.7%	28.2%
CLC 199	-0.24	-0.17	-0.23	-0.15	28.7%	27.9%	26.0%	29.3%
CLC 199 Comparison	-0.19	-0.22	-0.19	-0.23	26.2%	26.2%	26.3%	28.8%

- In 2012-13, 3rd-5th graders at the CLC 180 schools had lower standardized scale scores and proficiency rates than matched comparison students.
 - In 2013-14, CLC 180 students outperformed matched comparison students across both measures.
 - In 2014-15 and 2015-16, CLC 180 students' standardized scale scores and proficiency rates decreased.
- Both CLC 199 and matched comparison students' Reading scale scores fluctuated between 2012-13 and 2015-16.
 - CLC 199 students began with lower scale scores in 2012-13 than matched comparison students but outperformed the comparison students in Year Four 2015-16.
 - CLC 199 and matched comparison students showed similar trends in proficiency rates between 2012-13 and 2015-16.

Figure I2. Comparison of Trends in 3rd–5th Grade Achievement in Math EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

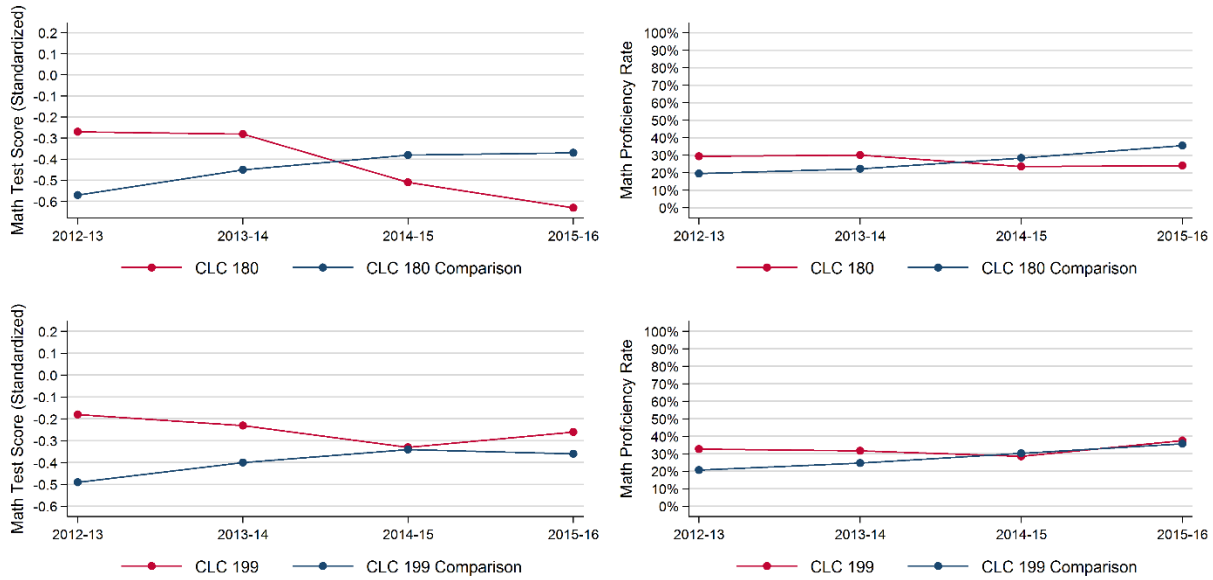


Table I2. Comparison of Trends in 3rd–5th Grade Achievement in Math EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
CLC 180	-0.27	-0.28	-0.51	-0.63	29.4%	30.1%	23.5%	24.1%
CLC 180 Comparison	-0.57	-0.45	-0.38	-0.37	19.5%	22.3%	28.4%	35.6%
CLC 199	-0.18	-0.23	-0.33	-0.26	32.8%	31.8%	28.6%	37.6%
CLC 199 Comparison	-0.49	-0.40	-0.34	-0.36	20.8%	24.7%	30.3%	35.7%

- On both standardized scale scores and proficiency rates, CLC 180 students outperformed matched comparison students at non-LIFT schools in 2012-13 and 2013-14, but their performance fell below that of the comparison students in 2014-15 and 2015-16.
- CLC 199 students also had a higher standardized scale scores and proficiency rates in 2012-13, but the gap became smaller over time.

Figure I3. Comparison of Trends in 6th – 8th Grade Achievement in Reading EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

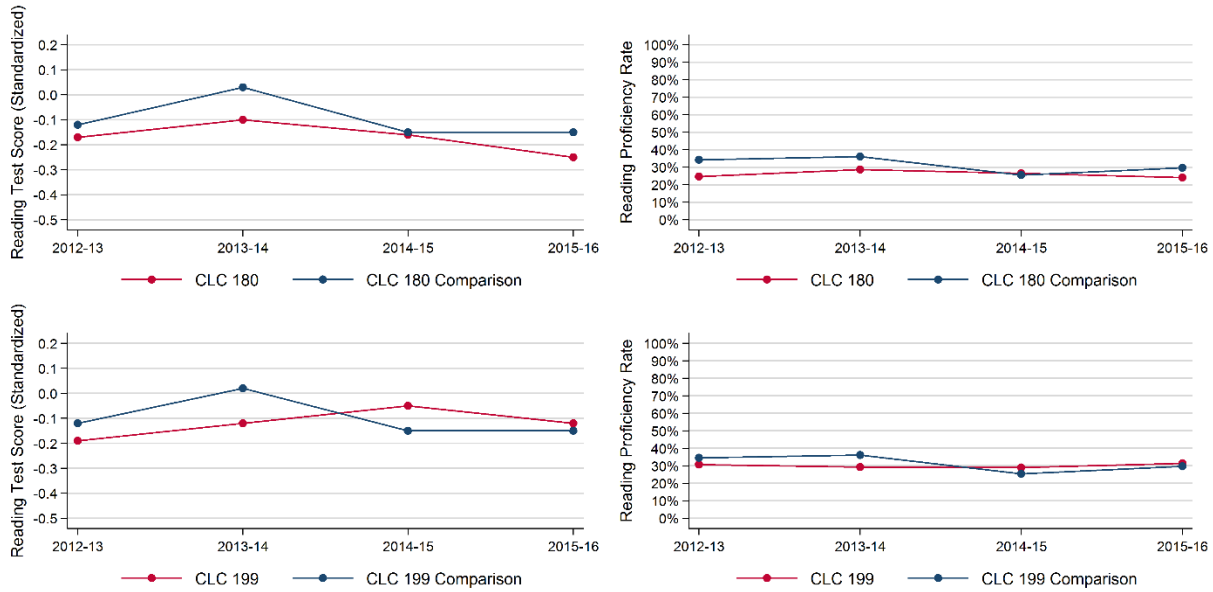


Table I3. Comparison of Trends in 6th–8th Grade Achievement in Reading EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
CLC 180	-0.17	-0.10	-0.16	-0.25	24.7%	28.6%	26.6%	24.1%
CLC 180 Comparison	-0.12	0.03	-0.15	-0.15	34.3%	36.1%	25.5%	29.7%
CLC 199	-0.19	-0.12	-0.05	-0.12	30.8%	29.3%	29.0%	31.4%
CLC 199 Comparison	-0.12	0.02	-0.15	-0.15	34.6%	36.2%	25.5%	29.7%

- In 2012-13, CLC 180 students had lower math standardized scale scores and proficiency rates than matched comparison students.
 - The achievement gap was closed in 2014-15 but reemerged in 2015-16.
- CLC 199 students began with lower scale scores and proficiency rates than matched comparison students in 2012-13, but they outperformed matched comparison students in 2014-15 and 2015-16.

Figure I4. Comparison of Trends in 6th–8th Grade Achievement in Math EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

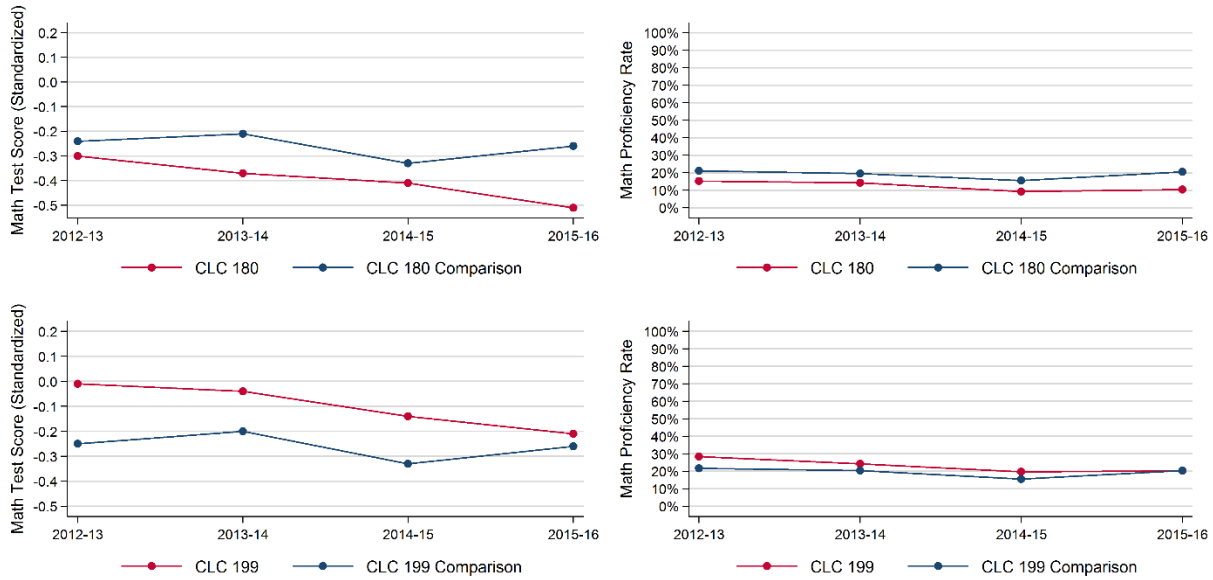


Table I4. Comparison of Trends in 6th – 8th Grade Achievement in Math EOG, LIFT CLC Students vs. Matched Comparison Students at Non-LIFT Schools

	STANDARDIZED SCALE SCORE				PROFICIENCY RATE			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
CLC 180	-0.30	-0.37	-0.41	-0.51	15.3%	14.2%	9.2%	10.4%
CLC 180 Comparison	-0.24	-0.21	-0.33	-0.26	21.1%	19.5%	15.6%	20.5%
CLC 199	-0.01	-0.04	-0.14	-0.21	28.4%	24.3%	19.7%	20.3%
CLC 199 Comparison	-0.25	-0.20	-0.33	-0.26	21.7%	20.4%	15.6%	20.5%

- CLC 180 students' performance on Math EOG standardized scale scores and proficiency rates remained below that of matched comparison students during all four years (2012-13 through 2015-16).
- CLC 199 students began with higher scale scores and proficiency rates in 2012-13, but the gap disappeared as CLC 199 students' scores declined over time.