2017 PROJECT WIN EVALUATION

Prepared for Durham Public Schools

December 2017

In the following report, Hanover Research examines the continued effectiveness of the Project WIN program through a longitudinal analysis of student literacy.

HANOVER RESEARCH

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EXECUTIVE SUMMARY

Durham Public Schools (Durham) has requested that Hanover Research evaluate the effectiveness of its Project What I Need (WIN) program. Project WIN is designed to increase reading proficiency and foundation literacy skills in Kindergarten through Grade 2 students, as well as to combat summer reading loss. To assist Durham, Hanover compares student proficiency on the mClass Text Reading Comprehension (TRC) assessments at the beginning (BOY), middle (MOY), and end (EOY) of 2015-16 and 2016-17 school years.

This report is organized as follows:

- **Section I: Data and Methodology** discusses the data and methodology Hanover uses in this analysis.
- **Section II: Grade Level Analysis** presents a comparison of TRC proficiency levels for each school by grade level.
- **Section III: Cohort Analysis** presents a similar comparison of TRC proficiency levels for each school by cohort, thus following the same students across grade levels.
- **Section IV: Progress Report Analysis** discusses teacher success in meeting Project WIN goals.

RECOMMENDATIONS

- Durham should maintain current Project WIN program initiatives at Lakewood Elementary and Y.E. Smith Elementary.
- Durham should develop additional initiatives to improve the effectiveness of Project WIN at CC Spaulding and Fayetteville Street.

KEY FINDINGS

- **Overall, Project WIN is successful in improving TRC proficiency.** Although all Project WIN schools generally demonstrate achievement gaps (i.e., have fewer proficient students compared to the district), most schools show a narrowing of achievement gaps over time, with two schools reversing the achievement gap by the end of one year.
  - o **Kindergarten**: Eastway and Eno Valley narrow achievement gaps by the end of each school year, and from 2015-16 EOY to 2016-17 EOY.
  - o **Grade 1**: Lakewood and Y.E. Smith narrow achievement gaps by the end of each school year; Eastway, Eno Valley, and Fayetteville Street also narrow achievement gaps in a single year. Further, Eastway and Y.E. Smith narrow achievement gaps from 2015-16 EOY to 2016-17 EOY.
  - o **Grade 2**: Lakewood and Y.E. Smith reverse achievement gaps by the end of each year; CC Spaulding, Eastway, and Fayetteville Street also narrow achievement

gaps in a single year. Additionally, CC Spaulding, Eno Valley, and Lakewood narrow achievement gaps from 2015-16 EOY to 2016-17 EOY.

- o **Kindergarten to Grade 1:** Eastway, Eno Valley, Lakewood, and Y.E. Smith narrow achievement gaps from the beginning of Kindergarten to the end of Grade 1.
- o **Grade 1 to Grade 2:** Lakewood and Y.E. Smith narrow achievement gaps from the beginning of Grade 1 to the end of Grade 2.

- **The success of Project WIN is most evident at Lakewood an Y.E. Smith.** These schools consistently show improvements over time in Grades 1 and 2, including increased percentages of proficient students and low achievement gaps that generally narrowed or reversed by the end of 2016-17.

- **However, Durham may want to consider providing additional resources to specific schools.** CC Spaulding, in particular, consistently underperforms in comparison to the other Project WIN schools. Specifically, the percentage of proficient students declines over time in both Kindergarten and Grade 1, although Grade 2 shows an increase in 2016-17. Further, in all grades, CC Spaulding has some of the highest achievement gaps, indicating that students tends to perform worse than other Project WIN schools relative to the district as a whole.

- **Despite general success (i.e., narrowing achievement gaps), the percentage of proficient students varies over time at each school.** Eastway, Eno Valley, and Fayetteville show inconsistent improvements, with increases in the percentage of proficient students evident in some years for some grades but not others. This is unlikely a reflection on the program, however, as there are no clear trends for these inconsistencies. Further, the inconsistencies to some extent mirror trends at the district level (e.g., decreases in the percentage of proficient students from BOY to EOY for Grade 1 in 2016-17 are consistent with decreases for the district), such that any declines may not be associated with widening achievement gaps.

- **Teachers show improvements in meeting Project WIN goals over the course of the year.** Specifically, Kindergarten teachers are most successful in the "Environment Established" goal and made the largest improvements in "Vowel Sounds" from the beginning to the end of the year. For Grade 1 teachers, there is little variance in ratings across the year. Grade 1 teachers are most proficient in the "Reading @Level D" goal and least successful in the "Read, Write, & Form Blends" goal at the end of the year, with the largest improvement in "Writing Multiple Paragraphs."

SECTION I: DATA AND METHODOLOGY

This section discusses the data and methodology Hanover uses in its analysis of TRC proficiency levels among Project WIN schools.

DATA OVERVIEW

Durham provided Hanover with a series of PDF and Word documents containing student mClass TRC proficiency level data for the district and teachers at each of the six Project WIN schools (C.C. Spaulding Elementary, Eastway Elementary, Eno Valley Elementary, Fayetteville Street Elementary, Lakewood Elementary, and Y.E. Smith Elementary). This analysis includes data from the "Comparing Correlations" files for each school, as well as program progress report files.[1]

We calculate proficiency levels by summing the number of TRC proficient or above proficient students across all teachers for each grade and school. We then divide these values by the total number of students in each grade at each school. The resulting percentages are referred to as "percentage of proficient students" in the remainder of this report.

METHODOLOGY

PROFICIENCY ANALYSIS

For each grade level and student cohort, we examine the changes in the percentage of proficient students across six time points, from 2015-16 BOY to 2016-17 EOY. These are school-level results representing all students enrolled in Kindergarten, Grade 1, or Grade 2 from the six participating elementary schools.

We focus the grade level analysis on changes from 2015-16 to 2016-17 EOY, which allow us to determine whether the percentage of proficient students is increasing, decreasing, or not changing in each grade level as the program continues. We focus the cohort level analysis on overall changes from 2015-16 BOY to 2016-17 EOY, as well as between specific time points (i.e., BOY to EOY in both years, and 2015-16 to 2016-17 EOY). This allows us to determine whether a particular cohort of students is showing continuous improvement over time, or whether they plateau or decline in later grades.

GAP ANALYSIS

In the gap analysis, we examine changes in the "achievement gaps" for students in each grade and school over time, relative to the district. Achievement gaps represent the discrepancy between the performance of an individual school and the performance of the district as a whole. They are calculated by subtracting the percentage of proficient students for the district from the percentage of proficient students for each school. Thus, a negative

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[1] We include the "Comparing Correlations" data, rather than similar data in other files, because it is the most complete and most similar to the data provided for last year's analysis.

achievement gap indicates that the percentage of proficient students at a particular school is below that of the district, and a positive achievement gap indicates that the percentage of proficient students is above that of the district.

As with the proficiency analysis, we focus the grade level analysis on changes in the achievement gap from 2015-16 to 2016-17 BOY and EOY, which allows us to determine whether the achievement gap is widening or narrowing in each grade as the program continues. Similarly, we focus the cohort analysis on overall changes from 2015-16 BOY to 2016-17 EOY, as well as between specific time points, allowing us to determine whether particular cohorts of students are narrowing or widening the achievement gap over time.

PROGRESS REPORT ANALYSIS

We examine teacher progress in successfully meeting Project WIN goals by comparing the percentage scores that Kindergarten and Grade 1 teachers receive at BOY, MOY, and EOY in 2016-17. Note that some schools have a single progress report, whereas other schools have several progress reports (one per teacher). For consistency, we average across all available data points to find the overall Project WIN progress.

SECTION II: GRADE LEVEL ANALYSIS

In this section, Hanover compares each Project WIN school to the District on TRC proficiency at six time points for each grade level.
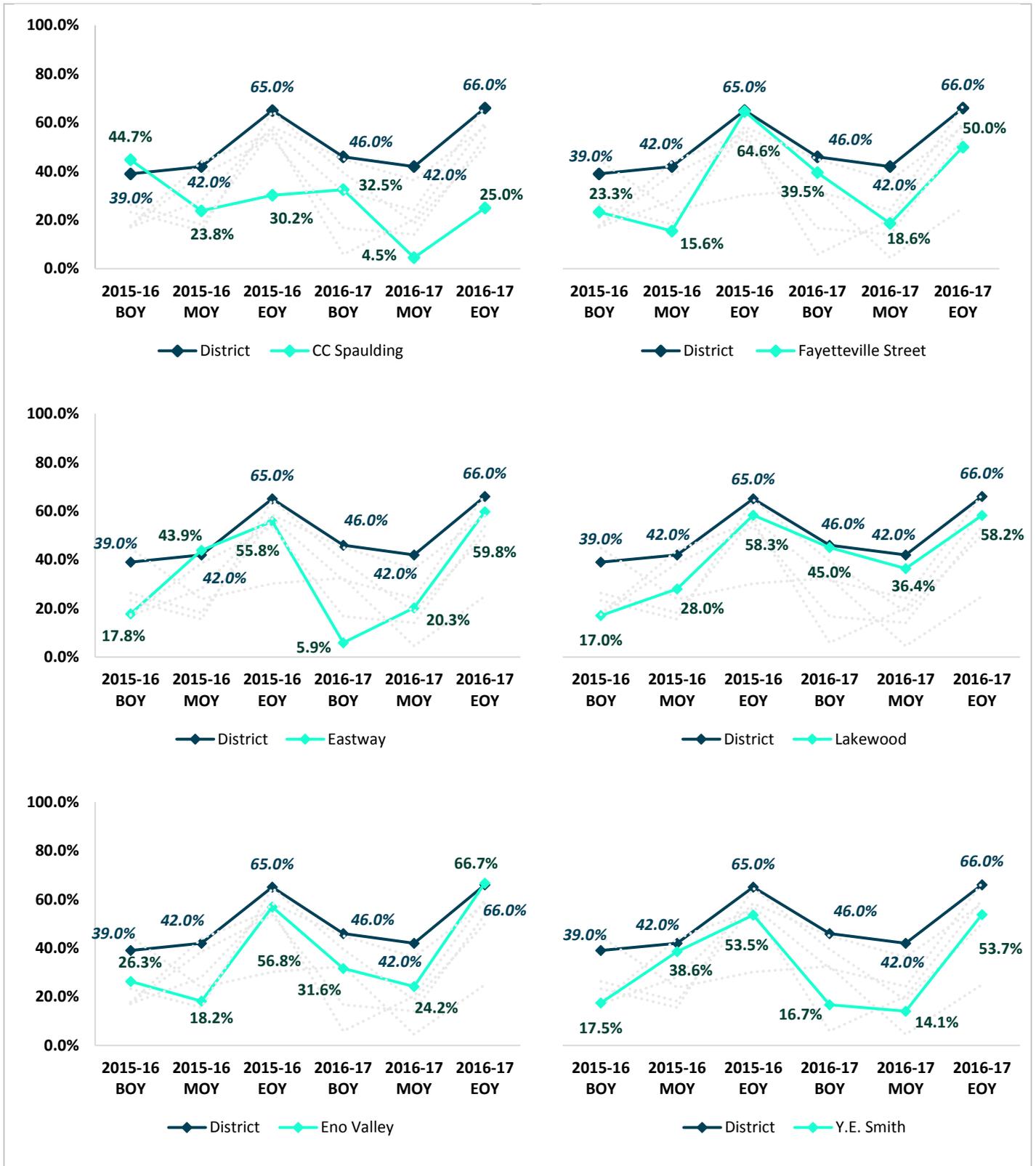
PROFICIENCY ANALYSIS

Figures 2.1 through 2.3 highlight the percentage of proficient students in Kindergarten through Grade 2 (respectively) at BOY, MOY, and EOY in 2015-16 and 2016-17 for each school compared to the district. Within the figures there are six graphs; each graph shows the district in dark blue and one of the schools in teal; for reference, the other Project WIN schools are also shown in a light gray in the background.

As shown in Figure 2.1, five schools (Fayetteville Street, Eastway, Lakewood, Eno Valley, Y.E. Smith) show an increase in Kindergarten TRC proficiency over the course of both school years, while one school (CC Spaulding) shows a decrease. When comparing across school years, however, only two schools show an increase in student proficiency. Specifically, the percentage of proficient students increased at Eastway and Eno Valley from 2015-16 to 2016-17 EOY. In contrast, the percentage of proficient students decreased at C.C. Spaulding and Fayetteville Street. Note that the percentage of proficient students was approximately the same in both years at Lakewood and Y.E. Smith.

In contrast, all six schools show a decrease in Grade 1 TRC proficiency over the course of both school years (Figure 2.2). This mirrors trends at the district level, suggesting that these declines are unlikely to be associated with Project WIN participation. Similar to the findings observed for Kindergarten, two schools (Eastway and Y.E. Smith) show an increase in student proficiency, two schools show a decrease (Fayetteville Street and Lakewood), and two schools do not change (CC Spaulding and Eno Valley).

Finally, as shown in Figure 2.3, Grade 2 results are more mixed. Four schools (CC Spaulding, Eastway, Eno Valley, Fayetteville Street) show an increase in TRC proficiency over the course of one year but a decrease over the course of the other, with the remaining two schools (Lakewood, Y.E. Smith) showing an increase in TRC proficiency in both years. When comparing across school years, three schools (CC Spaulding, Lakewood, Eno Valley) show an increase in the percentage of proficient students and three schools (Fayetteville Street, Eastway, Y.E. Smith) show a decrease.

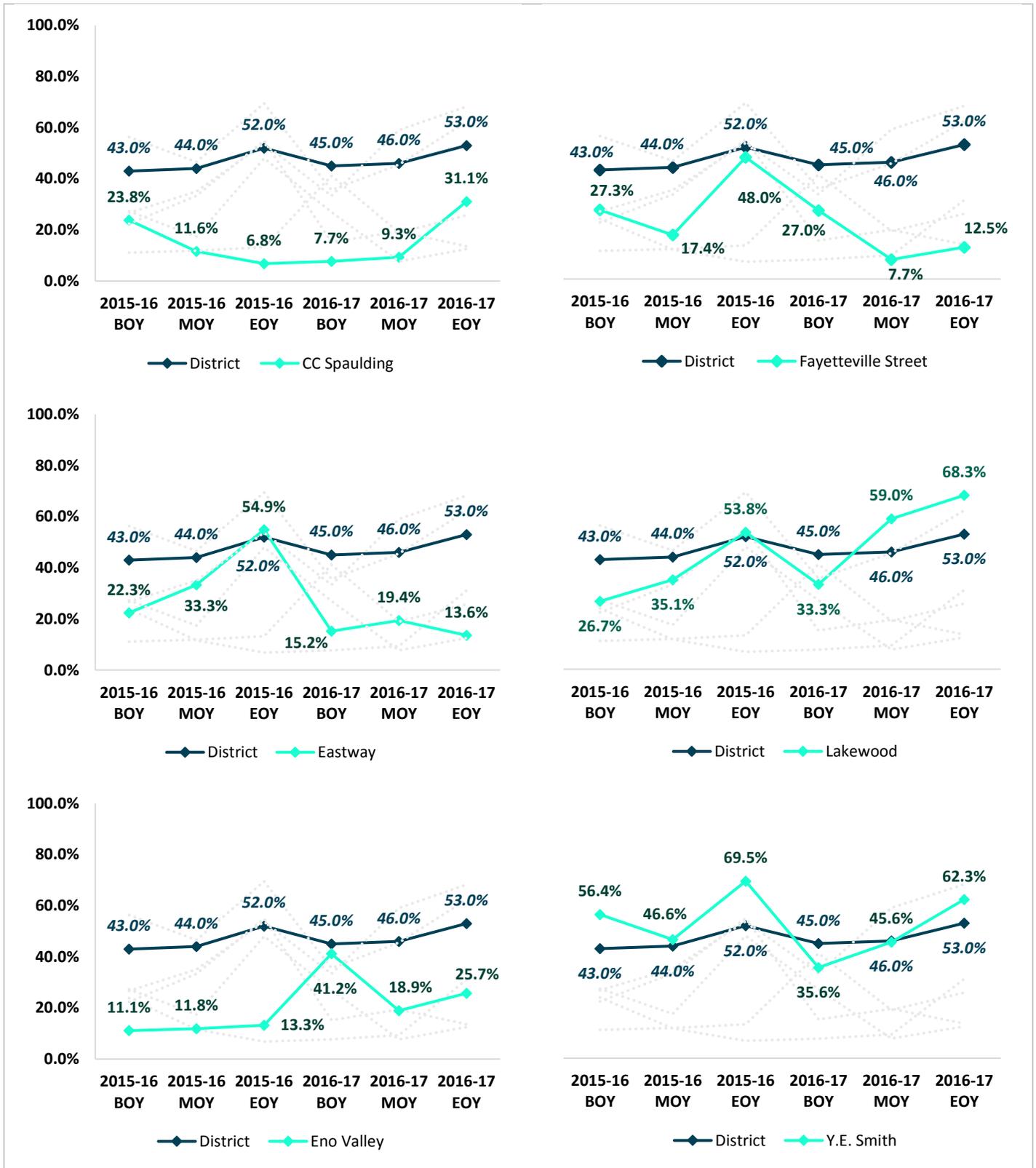**Figure 2.1: Changes in TRC Proficiency in Kindergarten, by School**

N range=2211-2578 (District), N range=38-104 (Individual Schools)

Figure 2.2: Changes in TRC Proficiency in Grade 1, by School
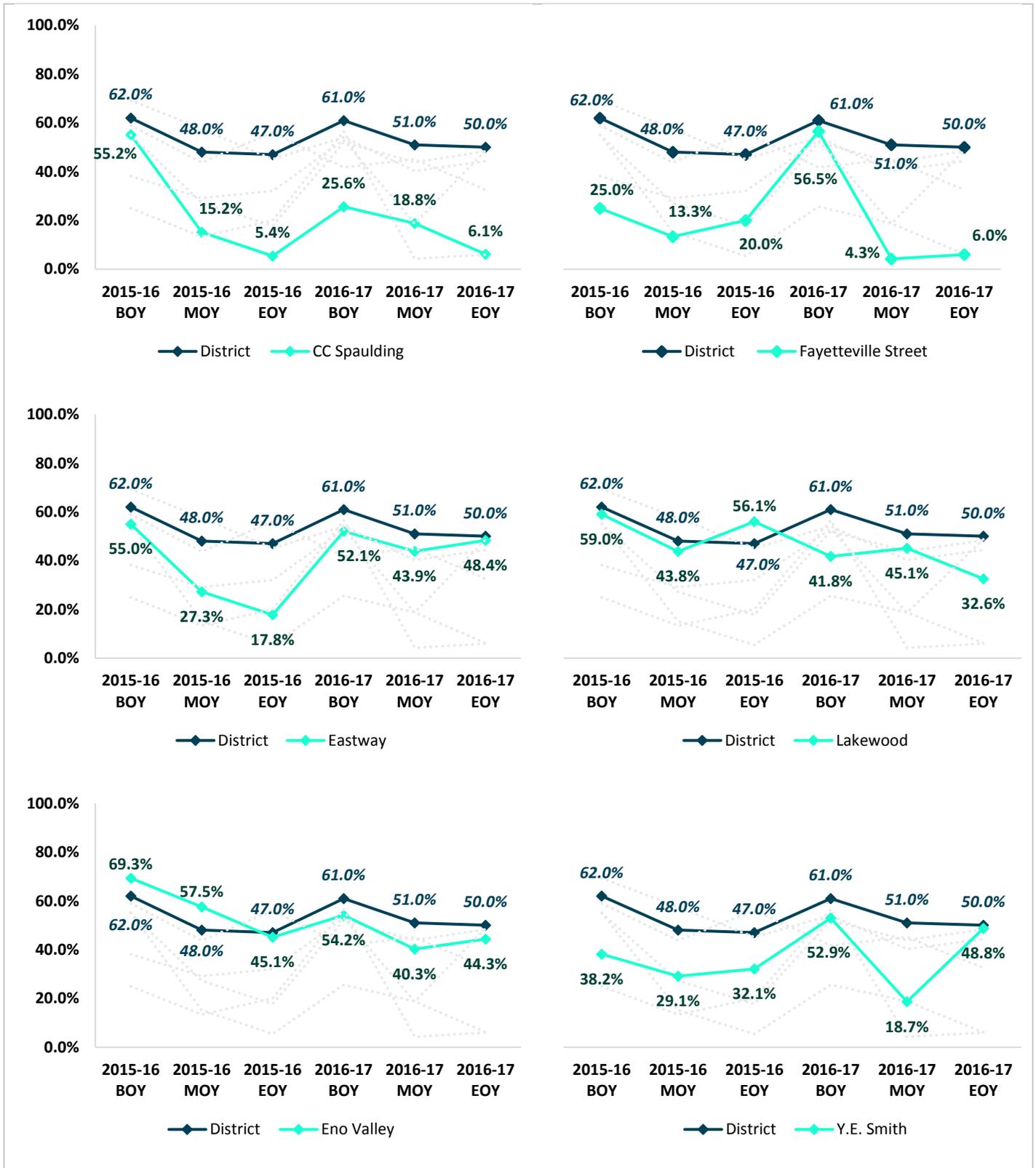
N range=2446-2690 (District), N range=29-118 (Individual Schools)

Figure 2.3: Changes in TRC Proficiency in Grade 2, by School

N range=2386-2737 (District), N range=37-103 (Individual Schools)

GAP ANALYSIS

Figures 2.4 through 2.6 present the achievement gaps between each school and the district regarding the percentage of proficient students in Kindergarten through Grade 2 (respectively) at BOY, MOY, and EOY in 2015-16 and 2016-17.
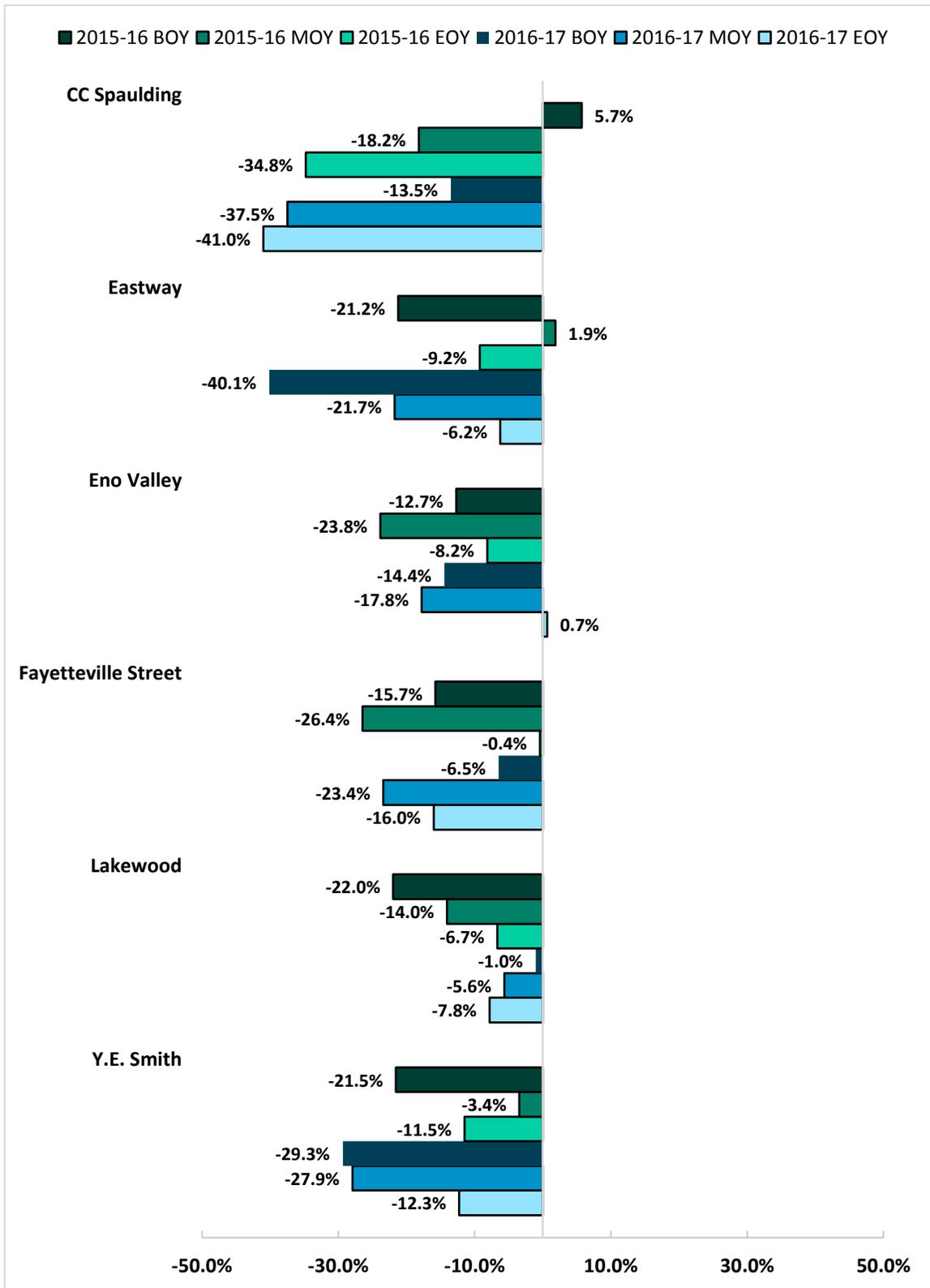
As shown in Figure 2.4, changes in Kindergarten TRC proficiency achievement gaps vary across schools and years. In general, the achievement gap at Lakewood is smaller than at other schools, whereas the achievement gap at CC Spaulding is larger than at other schools. Further, most schools show improvements to the achievement gap over the course of a year. Eastway, Eno Valley, and Y.E. Smith narrow the achievement gap in both years, with Eno Valley reversing the gap in 2016-17 (such that it performs better than the district); similarly, Fayetteville Street and Lakewood narrow the achievement gap in 2015-16. In contrast, CC Spaulding widens the achievement gap in both years, and Fayetteville Street and Lakewood widen the achievement gap in 2016-17. Consistently, from 2015-16 to 2016-17 EOY, Eastway and Eno Valley narrow the achievement gap, whereas CC Spaulding, Fayetteville Street, and Lakewood widen the achievement gap, and the achievement gap at Y.E. Smith remains the same.

Similar to the trends observed for Kindergarten, changes in Grade 1 TRC proficiency achievement gaps vary across schools and years (Figure 2.5). Overall, the achievement gaps at Eno Valley and Lakewood are generally lower than at other schools, whereas the achievement gaps at CC Spaulding and Fayetteville Street tend to be wider than at other schools. Lakewood and Y.E. Smith narrow the achievement gap in both years, with Lakewood reversing the gap in 2015-16 (such that it performs better than the district); similarly, Fayetteville Street narrows the achievement gap in 2015-16, and Eastway and Eno Valley narrow the achievement gap in 2016-17. In contrast, CC Spaulding widens the achievement gap in both years; Eastway and Eno Valley widen the achievement gap in 2015-16, and Fayetteville Street widens the achievement gap in 2016-17. From 2015-16 to 2016-17 EOY, Eastway and Y.E. Smith narrow the achievement gap, whereas CC Spaulding, Eno Valley, Fayetteville Street, and Lakewood widen the achievement gap.

Figure 2.6 shows the changes in Grade 2 TRC proficiency achievement gaps. Overall, the achievement gaps at Lakewood and Y.E. Smith are generally lower (or reversed, such that students at these two schools perform better than the district) than at the other four schools, which all have relatively large achievement gaps at most time points. Lakewood and Y.E. Smith reverse and widen the achievement gap in both years (such that they perform better than the district). Additionally, Eastway and Fayetteville Street narrow the achievement gap in 2015-16,[2] and CC Spaulding narrows the achievement gap in 2016-17. In contrast, Eno Valley widens the achievement gap; similarly, CC Spaulding widens the achievement gap in 2015-16, and Eastway and Fayetteville Street widen the achievement gap in 2016-17.

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[2] Eastway reverses the achievement gap, such that it performs better than the district.

Figure 2.4: Difference in TRC Proficiency Achievement Gap in Kindergarten, by School


Legend: ■ 2015-16 BOY ■ 2015-16 MOY ■ 2015-16 EOY ■ 2016-17 BOY ■ 2016-17 MOY ■ 2016-17 EOY

CC Spaulding
- 5.7%
- -18.2%
- -34.8%
- -13.5%
- -37.5%
- -41.0%

Eastway
- -21.2%
- 1.9%
- -9.2%
- -40.1%
- -21.7%
- -6.2%

Eno Valley
- -12.7%
- -23.8%
- -8.2%
- -14.4%
- -17.8%
- 0.7%

Fayetteville Street
- -15.7%
- -26.4%
- -0.4%
- -6.5%
- -23.4%
- -16.0%

Lakewood
- -22.0%
- -14.0%
- -6.7%
- -1.0%
- -5.6%
- -7.8%

Y.E. Smith
- -21.5%
- -3.4%
- -11.5%
- -29.3%
- -27.9%
- -12.3%

Axis: -50.0% -30.0% -10.0% 10.0% 30.0% 50.0%

N range=2211-2578 (District), N range=38-104 (Individual Schools)

Figure 2.5: Difference in TRC Proficiency Achievement Gap in Grade 1, by School
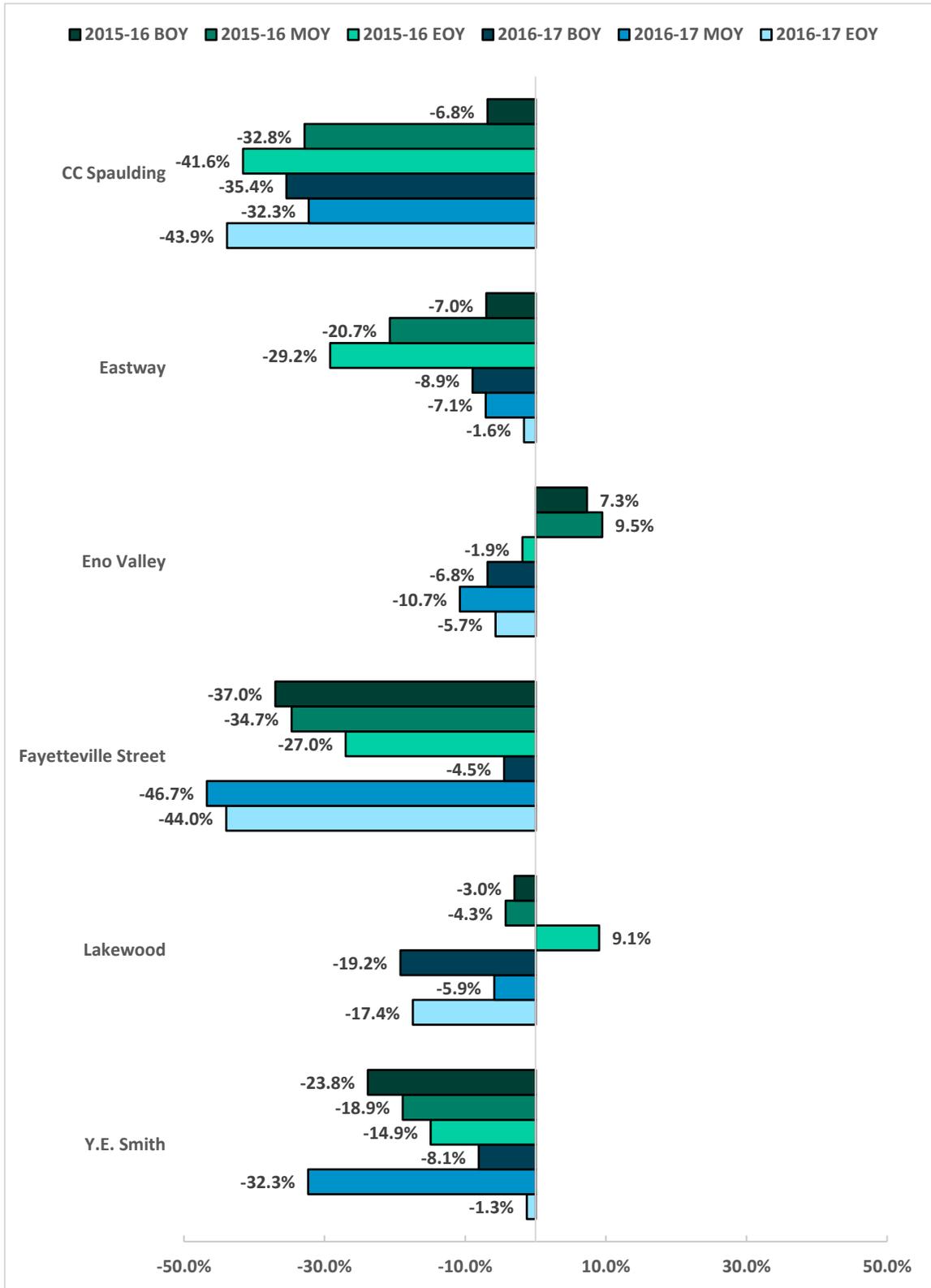
N range=2446-2690 (District), N range=29-118 (Individual Schools)

Figure 2.6: Difference in TRC Proficiency Achievement Gap in Grade 2 by School
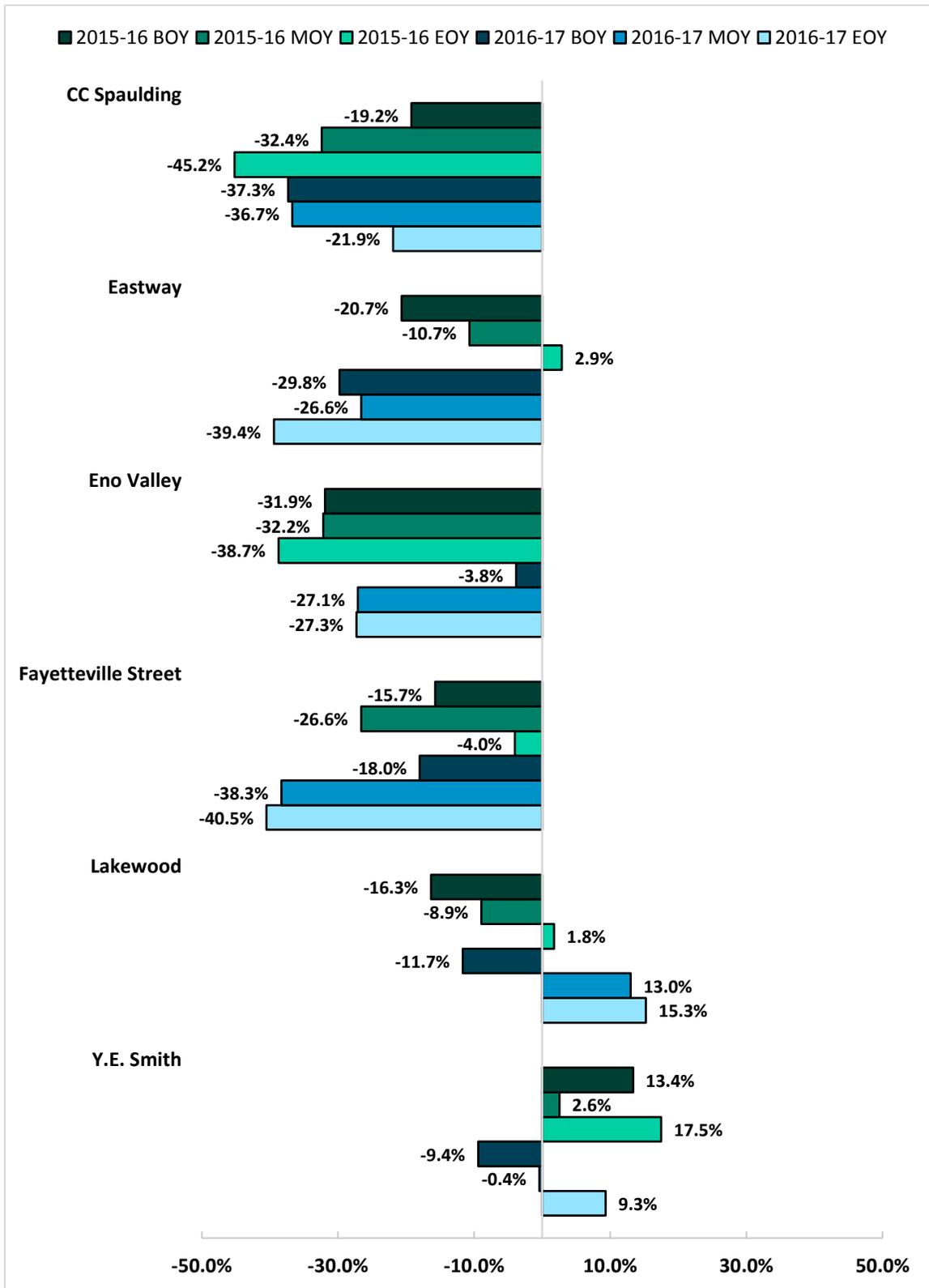
N range=2386-2737 (District), N range=37-103 (Individual Schools)

SECTION III: COHORT ANALYSIS

In this section, Hanover compares each Project WIN school to the District on TRC proficiency at six time points across two grades for each cohort of students.

PROFICIENCY ANALYSIS

Figures 3.1 and 3.2 highlight the percentage of proficient students at BOY, MOY, and EOY in 2015-16 (Kindergarten/Grade 1) and 2016-17 (Grade 1/Grade 2) for each school compared to the district. Within the figure there are six graphs; each graph shows the district in dark blue and one of the schools in teal; for reference, the other Project WIN schools are also shown in a light gray in the background.

As Figure 3.1 illustrates, four schools (Eastway, Eno Valley, Lakewood, Y.E. Smith) demonstrate an increase in TRC proficiency from the beginning of Kindergarten (2015-16 BOY) to the end of Grade 1 (2016-17 EOY), whereas two schools (CC Spaulding, Fayetteville Street) show a decrease. Notably, these improvements appear to be driven by 2015-16 proficiency levels. From BOY to EOY of 2015-16, five schools (Eastway, Eno Valley, Fayetteville Street, Lakewood, Y.E. Smith) show an increase, with only CC Spaulding showing a decrease. However, from BOY to EOY of 2016-17, all six schools show a decrease. Consistently, all six schools also show a decrease from 2015-16 EOY to 2016-17 EOY. Note that these trends may not be a reflection on the efficacy of Project WIN, however, given that the entire district experience similar declines that same year in that same time frame.

Figure 3.2 shows the changes in TRC proficiency from the beginning of Grade 1 (2015-16 BOY) to the end of Grade 2 (2016-17 EOY). Two schools (Lakewood, Y.E. Smith) show an increase, whereas four schools (CC Spaulding, Eastway, Eno Valley, Fayetteville Street) show a decrease. The trends for each year are similar – from BOY to EOY of 2015-16, all six schools show a decrease; from BOY to EOY of 2016-17, three schools (CC Spaulding, Lakewood, Y.E. Smith) show an increase, and three schools (Eastway, Eno Valley, Fayetteville Street) show a decrease.

Figure 3.1: Changes in TRC Proficiency from Kindergarten to Grade 1, by School
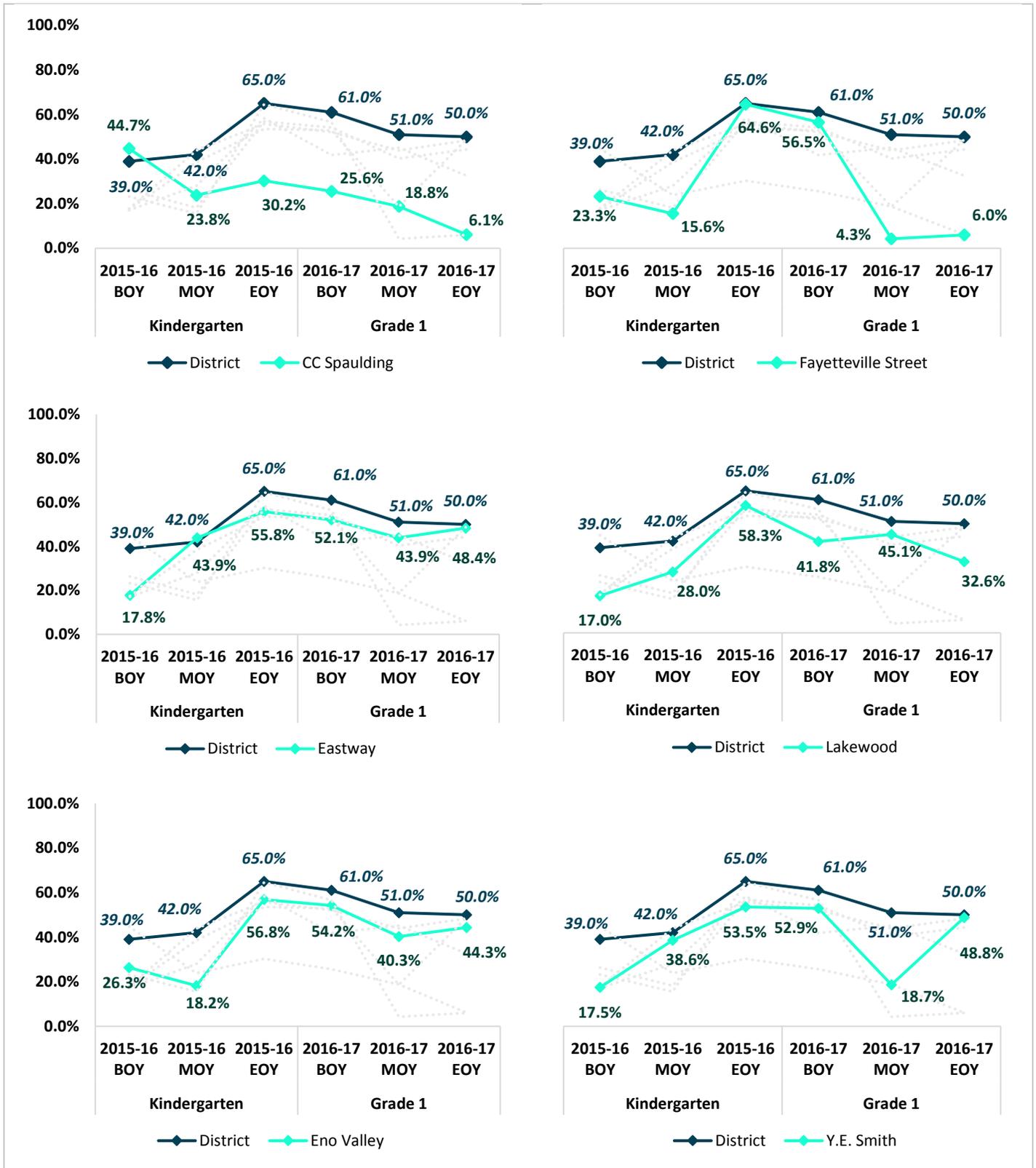
N range=2344-2669 (District), N range=38-104 (Individual Schools)

Figure 3.2: Changes in TRC Proficiency from Grade 1 to Grade 2, by School
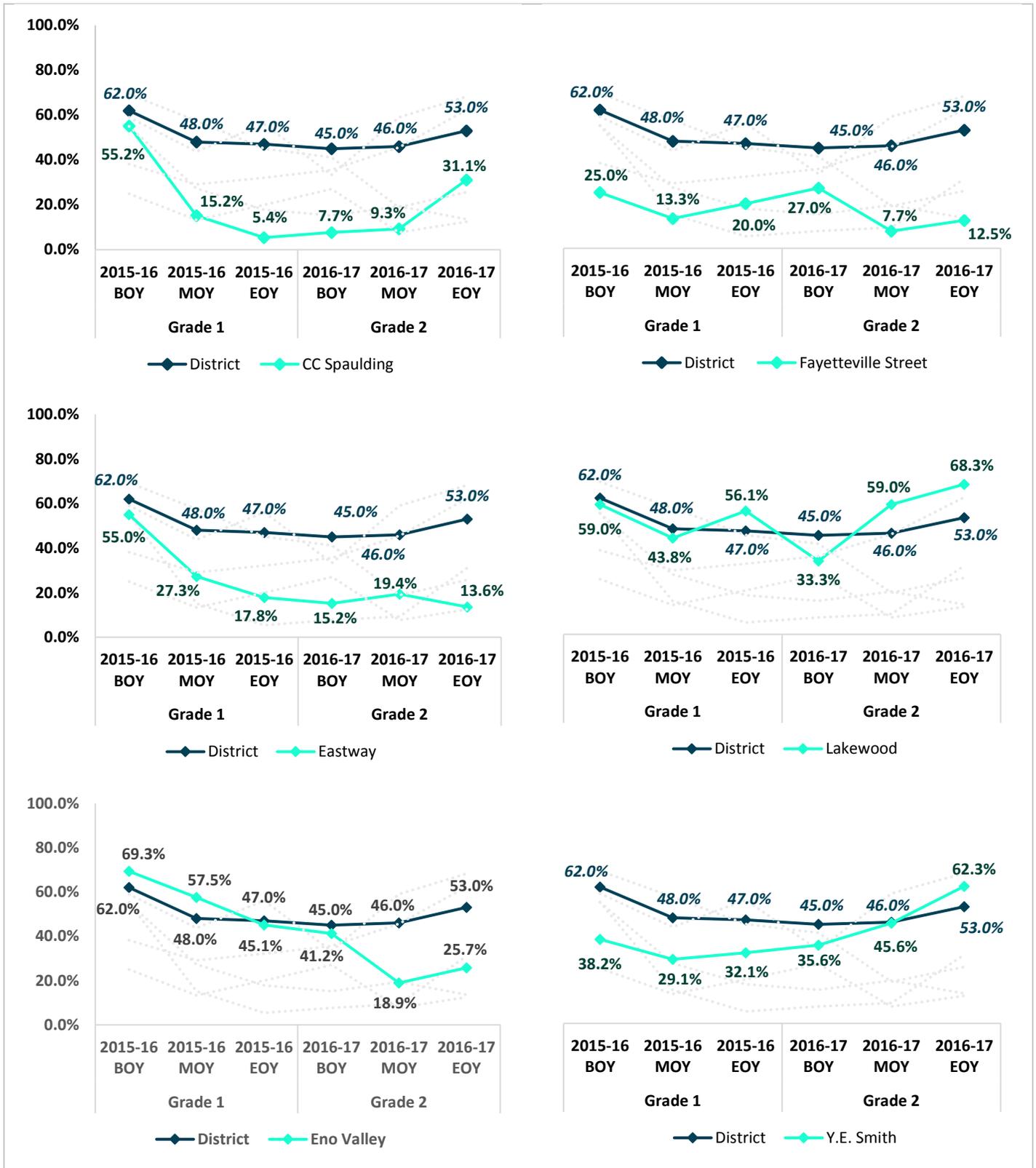
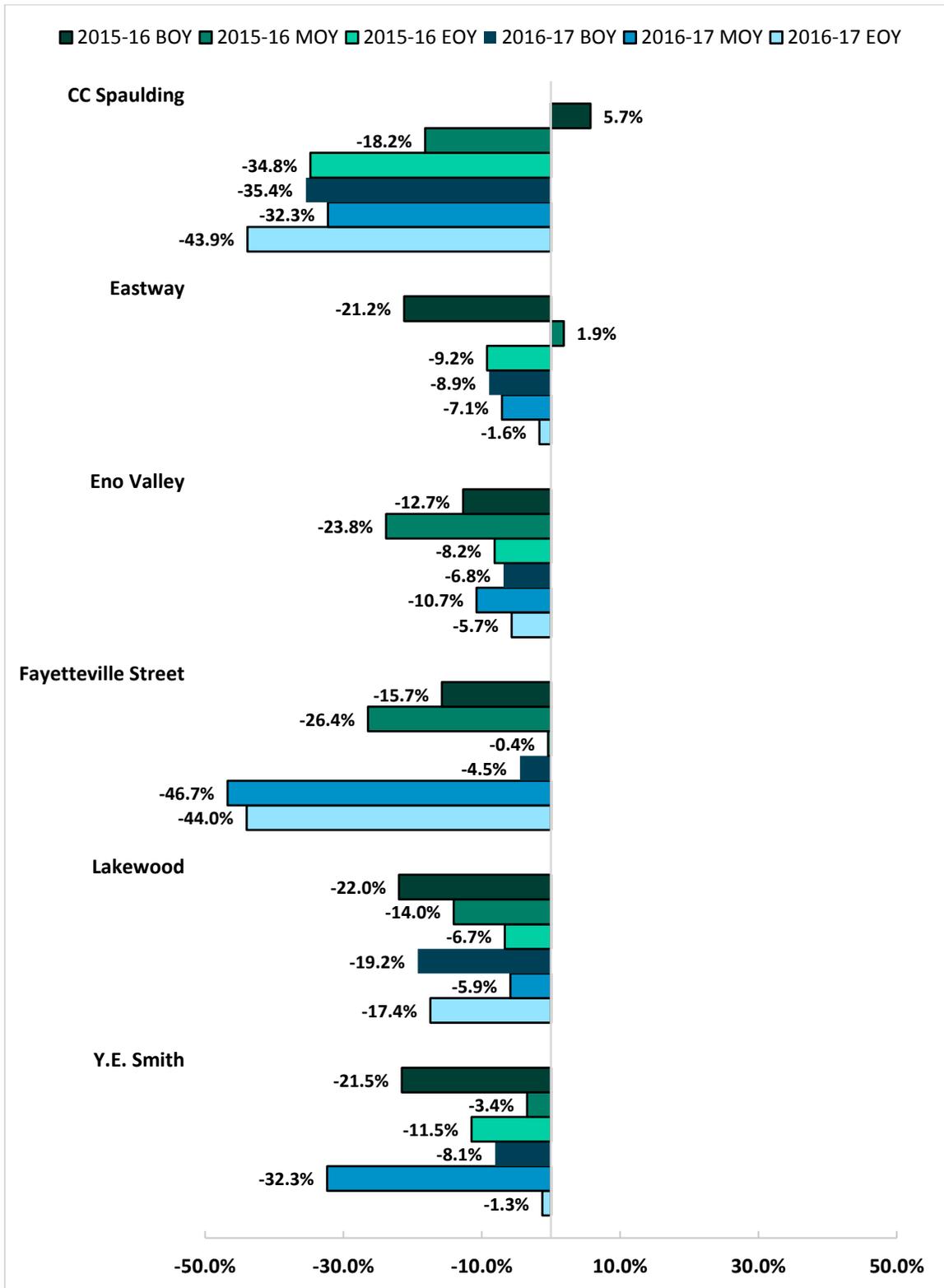N range=2386-2690 (District), N range=29-118 (Individual Schools)

GAP ANALYSIS

Figures 3.3 and 3.4 present the achievement gaps between each school and the district regarding the percentage of proficient students in each cohort – Kindergarten to Grade 1, Grade 1 to Grade 2 – at BOY, MOY, and EOY in 2015-16 (Kindergarten/Grade 1) and 2016-17 (Grade 1/Grade 2).

As shown in Figure 3.3, changes in TRC proficiency achievement gaps from Kindergarten to Grade 1 vary across schools. In general, Eastway, Eno Valley, Lakewood, and Y.E. Smith have relatively small achievement gaps compared to CC Spaulding and Fayetteville Street. There are mixed results regarding changes over time. Specifically, from 2015-16 BOY to 2016-17 EOY, the achievement gap narrows at Eastway, Eno Valley, Lakewood, and Y.E., but widens at CC Spaulding and Fayetteville Street. Consistent with these findings, from 2015-16 EOY to 2016-17 EOY, the achievement gap narrows at Eastway, Eno Valley, and Y.E. Smith, but widens at CC Spaulding, Fayetteville Street, and Lakewood.

Figure 3.4 shows the changes in TRC proficiency achievement gaps from Grade 1 to Grade 2. In general, Lakewood has the smallest achievement gaps (although Eno Valley also has relatively small gaps in 2015-16, and Y.E. Smith has relatively small gaps in 2016-17) compared to CC Spaulding, Eastway, and Fayetteville Street. Again, there are mixed results regarding changes over time. Specifically, from 2015-16 BOY to 2016-17 EOY, Lakewood and Y.E. Smith narrow the achievement gap; in contrast CC Spaulding, Eastway, Eno Valley, and Fayetteville Street widen the achievement gap. Further, between 2015-16 EOY and 2016-17 EOY, CC Spaulding, Lakewood, and Y.E. Smith narrow the achievement gap, while Eastway, Eno Valley, and Fayetteville widen the achievement gap.

Figure 3.3: Difference in TRC Proficiency Achievement Gap from Kindergarten to Grade 1, by School

N range=2344-2669 (District), N range=38-104 (Individual Schools)

Figure 3.4: Difference in TRC Proficiency Achievement Gap from Grade 1 to Grade 2, by School
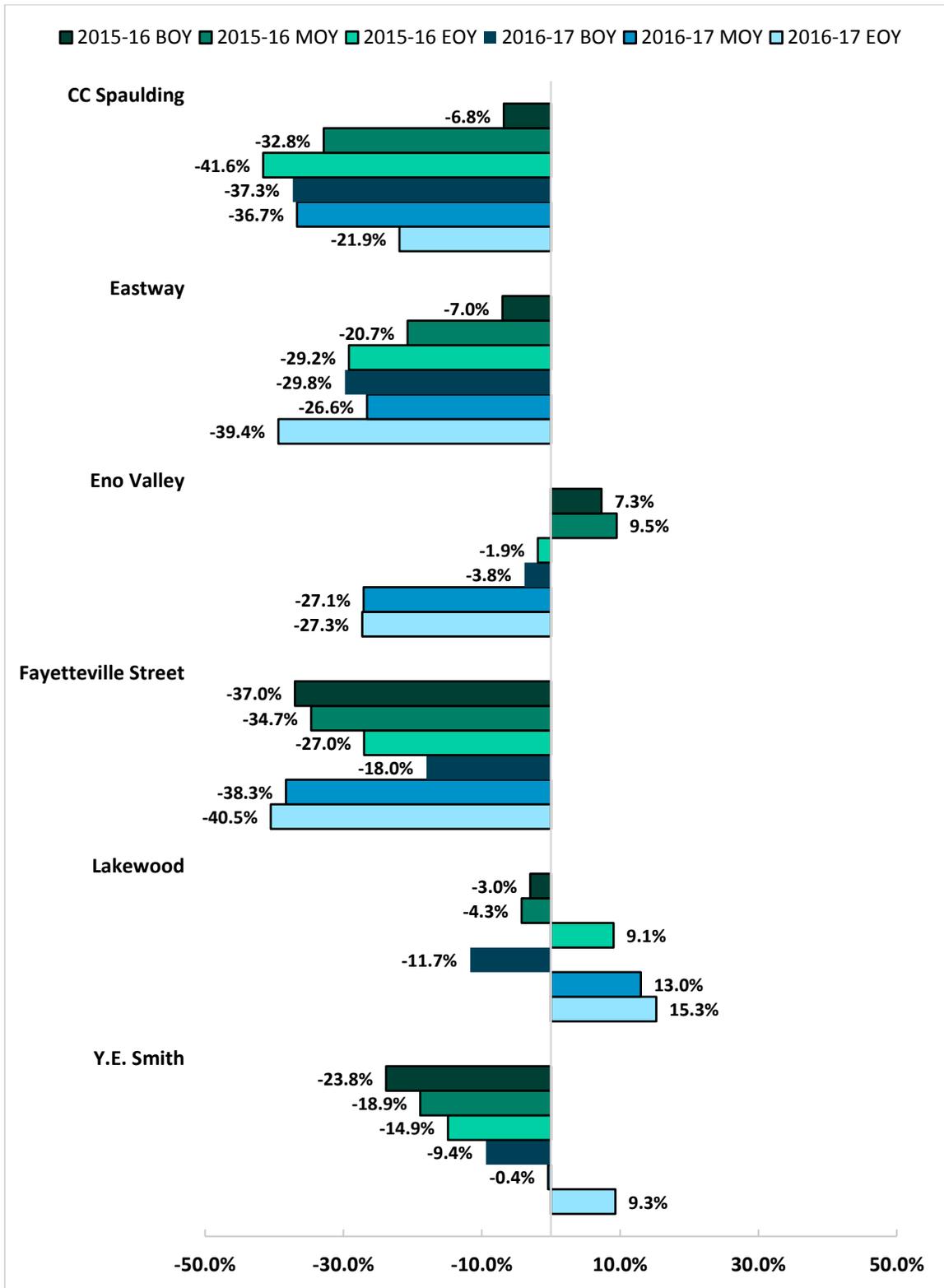
N range=2386-2690 (District), N range=29-118 (Individual Schools)

SECTION IV: PROGRESS REPORT ANALYSIS

Figure 4.1 shows Project WIN progress goals in Kindergarten and Grade 1, with teacher ratings at BOY, MOY, and EOY. Teachers show consistent improvement from BOY to EOY on all goals in each grade.

Kindergarten teachers are initially most successful in the "Environment Established" goal and least successful in the "Vowel Sounds" goal. By the end of the year they are still most successful in the "Environment Established" goal and least successful in the "Complete Sentence for Verbal and Written Responses" goal. Consistently, the largest improvements tend to be in the "Vowel Sounds" goal.

There is less variance in Grade 1 teachers' initial success. Specifically, although Grade 1 teachers are initially most successful in the "3 Components of Literacy Block Implemented" goal and least successful in the "Writing Multiple Paragraphs" goal at the beyinning of the year, the difference between these two goals is smaller. By the end of the year, Grade 1 teachers show overall improvement similar to that of Kindergarten teachers. Grade 1 teachers are most proficient in the "Reading @Level D" goal and least successful in the "Read, Write, & Form Blends" goal at the end of the year. The largest improvements tend to be in the "Writing Multiple Paragraphs" goal.

Figure 4.1: Average Teacher Percent Ratings by Grade for Progress Goals

GOAL	AVERAGE RATING BOY	AVERAGE RATING MOY	AVERAGE RATING EOY
Kindergarten			
Environment Established	67%	96%	100%
Read Alouds Incorporated	60%	94%	97%
3 Components of Literacy Block Implemented	54%	97%	99%
Alphabet Recognition	34%	84%	94%
Beginning Letter Sounds	38%	74%	91%
Ending Letter Sounds	21%	66%	88%
Vowel Sounds	8%	67%	88%
Sentence Writing	14%	55%	84%
Complete Sentence for Verbal and Written Responses	9%	49%	79%
80% Sight Word Mastery	24%	71%	90%
Grade 1			
Environment Established	58%	90%	92%
K Foundation Skills Mastery	58%	84%	93%
Read Alouds Incorporated	58%	88%	88%
3 Components of Literacy Block Implemented	69%	86%	88%
Reading @Level D	45%	69%	95%
Paragraph Writing	36%	60%	81%
Fluency @ Level D & Above	34%	50%	81%
Read, Write, & Form Blends	29%	37%	67%
Comprehension @ Level D & Above	40%	53%	92%
Writing Multiple Paragraphs	28%	43%	78%
80% Sight Word Mastery	43%	70%	87%

Note: This table averages all teacher percentages from provided progress report files. Some reports were missing data, so averages were calculated using only available data. Please see accompanying data file for progress reports for further information.

PROJECT EVALUATION FORM

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CAVEAT

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