Lincoln Public Schools

Patricia Kinsella
Assistant Superintendent of Schools

To: School Committee
From: Patricia Kinsella
Re: Report on the 2015 MCAS Results
Date: October 22, 2015

This is the first annual report on the results of the district's Key Yearly Measures, five literacy and math assessments identified last spring for use as internal barometers of student growth and achievement. Longitudinal analysis of these measures will yield insight in future years into growth trends and programmatic effectiveness. Ongoing analysis, including this first report, will allow for quicker response to student needs and more effective deployment of intervention resources.

One of the primary goals in the identification and use of the Key Yearly Measures was to drive an process with assessment practices, from test administration, to scoring, data collection, analysis, and reporting. For four of the five Key Yearly Measures, this report is the first depiction of the data in a format that is user-friendly, a resource that will now enable teams of educators and administrators greater access to the assessment information.

A description of the five Key Yearly Measures may be found in Appendix A.

The team collaborating on this report has contributed an extraordinary amount of time and effort and must be acknowledged. Rob Ford worked with all parties to gather and analyze data, and then produced many of the charts in the appendices. Rob also developed the online spreadsheets that teachers used to enter and share scores for several of the assessments. Kathy O'Connell and Judy Merra gathered and organized large quantities of math and literacy data; they also provided patient explanations of the intricacies of each assessment. The professionalism and work ethic of these colleagues has allowed the district to make this significant advance in its work with student learning data. The district expresses its gratitude for their leadership.

Key Yearly Measures of Academic Achievement						
	Literacy			Math		
Gr.	MCAS	Common Writing Assessment	F&P	MCAS	Student Interview Model	STAR
K		✓	✓		✓	
1		✓	✓		✓	
2		✓	✓		✓	
3	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓		✓
5	✓	✓	✓	✓		✓
6	✓	✓		✓		✓
7	✓	✓		✓		✓
8	✓	✓		✓		✓

MCAS
This report examines school- and grade-level results of the the 2015 Massachusetts Comprehensive Assessment System (MCAS) testing results in ELA and Math for the Lincoln Public Schools through the lens of two key dimensions:

I. **Performance Levels:** How do students perform relative to the expectation of proficiency in English Language Arts (ELA), mathematics, and science/engineering?

II. **Student Growth:** What are some indicators of individual and grade level growth in performance over the past few years of MCAS testing?

A second report, to be presented in November, will provide information on subgroup performance, in conjunction with information from local district assessments. This report does not include school or district accountability ratings, as the state will not be releasing that information until later in the fall. Nor does the report include analysis of Science/Technology results, as the alignment between the transition to the expected new standards and the existing MCAS assessments has not yet been achieved.

PART I MCAS PERFORMANCE LEVELS

Lincoln School (see Appendix B for detailed scores)

ACHIEVEMENT	Percentage of students in Lincoln School at Proficient or Advanced in 2015 compared to state			
	ELA		Math	
	Lincoln Sch.	State	Lincoln Sch.	State
Gr. 3	85	60	92	71
Gr. 4	74	54	62	48
Gr. 5	87	71	84	67
Gr. 6	86	71	83	62
Gr. 7	94	69	84	50
Gr. 8	100	81	81	60

Lincoln School students continue to demonstrate strong overall performance in ELA and Math. Taken together, 84% of students in grades 3-8 score at Proficient or Advanced levels in ELA; in Math, the combined A/P levels is 73%.

Areas of strength in ELA include the Gr. 5 results, in which the percentage of students at W/NI decreases from 33% in 2014 to 13% in 2015; in addition, the percentage of students in the Advanced level increases from 16% to 37%. Eighth grade shows similar strengths, with no students in either W/NI and an increase in Advanced from 10% to 37%. In grades 6-8, there were no students scoring in the Warning level. In grades 3-5, only one or two students in each grade level score at the Warning level.

Areas of strength in Math include Gr. 5, in which the state scores improve, but Lincoln School's scores improve at a faster rate, with an increase at the combined A/P levels from 71% in 2014 to 84% in 2015. Gr. 8 shows positive movement in all four levels from 2014 to 2015. Single-year scores of note include Grades 3, 5, 7, and 8, in which close to or more than half of all students score at the Advanced level.

Areas for further investigation include Gr. 4, in which students continue to score above state levels of achievement in ELA, but increase at the NI level from 16% to 25%. It must be noted that the Gr. 4 and Gr. 7 MCAS ELA exams are widely perceived to be the most difficult, as they include the long composition. Over time, cohort scores from Gr. 4 to Gr. 5 at Lincoln School show consistent improvement.

The cohort performance chart (Appendix C) shows that scores maintain a multiple year trend of increasing levels of achievement in the Lincoln School across grades in both ELA and Math. A comparison of Lincoln School MCAS scores in comparison to those in surrounding communities may be found in Appendix D.

6-YEAR COMPARISON	Percentage of students in Lincoln School at Proficient or Advanced in eighth grade (2015) compared to same cohort's achievement in third grade (2011)							
	ELA				Math			
	% A	% P	% NI	% W	% A	% P	% NI	% W
2010 (Gr. 3)	16	69	11	4	35	47	18	8
2015 (Gr. 8)	37	63	0	0	48	33	17	2

Hanscom Schools (see Appendix B for detailed scores)

ACHIEVEMENT	Percentage of students in HPS & HMS at Proficient or Advanced in 2015 compared to state			
	ELA		Math	
	Hanscom	State	Hanscom	State
Gr. 3	86	60	43	71
Gr. 4	48	54	33	48
Gr. 5	74	71	62	67
Gr. 6	85	71	46	62
Gr. 7	77	69	59	50
Gr. 8	91	81	51	60

Students in the Hanscom schools perform on the ELA assessment at levels above those of the state, except in Gr. 4. In Math, Hanscom results are lower than the states' in four of six grades. The Hanscom Middle School students' combined Advanced and Proficient performance levels for all students in grades 4-8 this year are 73% in ELA and 51% in Math.

Of particular note in ELA are the combined A/P levels in grades 3, 5, 6, 7, 8, all of which are over 74%, with 91% of eighth graders scoring in these levels. In the eighth grade, the percentage of students scoring at the Advanced level in ELA increases from 17% in 2014 to 44% in 2015.

Areas for further investigation include Gr. 4 Math scores, in which the percentage of students scoring at the NI level increases from 46% to 60%. In the third grade, 41% of students score at NI in Math.

This report does not include a longitudinal cohort analysis for the Hanscom schools, given the high level of turnover in the student population. In the Gr. 5 class of 2015, for instance, only 43% of students had taken the ELA MCAS in Gr. 4. The corresponding figure on the Lincoln campus is 94%.

PART II STUDENT GROWTH PERCENTILE (SGP) (see Appendix E for detailed scores)

The Student Growth Percentile (SGP) reflects a student's progress over at least two years of MCAS testing relative to that of students across the state who are considered "academic peers." The rate of growth is expressed as a percentile score, which is calculated using the performance scores of other students who have a similar test score history. While the achievement score indicates how a student performed relative to grade level standards in a given year, the SGP provides a measure of how a student changed from one year to the next. The addition of a growth percentile to the information on MCAS testing of a student's achievement on standards defines academic performance as a combination of growth and achievement. More information about the state's rationale and formula for calculating the SGP is available at www.doe.mass.edu/mcas/growth/.

Students in grades 4-8 who have taken the MCAS tests for at least two years have information about SGP in the MCAS results report sent home to families. The parent information chart includes achievement level and scores along with student growth percentiles for ELA and mathematics. The DESE offers three points of guidance in using SGP scores:

- Typical student growth percentiles are between about 40 and 60 on most tests.
- Students or groups outside this range have higher or lower than typical growth.
- Differences of fewer than 10 SGP points are likely not educationally meaningful.

In both middle schools, the SGP individual scores are far more useful than group scores. Principals have undertaken a close examination of the pattern of SGP scores for all students, with special attention to those students who did not achieve proficiency in their ELA and/or mathematics achievement results. Overall, the median SGP in Lincoln School is 58% in ELA and 51% in Math. The median SGP at Hanscom Middle School is 51% in ELA and 43% in Math. See Appendix D for charts that show ELA and Math SGP score distributions for grades 4-8 in the Lincoln School and the Hanscom Middle School.

Common Writing Assessment (See Appendix F for detailed scores)
The Common Writing Assessment is an important measure of our students' ability to write in response to a prompt. LPS educators have adapted the Six-Trait Writing Rubric for use in scoring, and students receive from five to nine subscores, depending on the grade level. There is no single, averaged score for this assessment, as the subscores measure quite different elements of good writing: the development of ideas and text organization, for example, along with spelling, punctuation, and grammar.

The writing scores are presented in Appendix F. For each subscore, we have calculated the number of students who meet the end-of-year benchmark in the fall and in the spring. To illustrate, in the first grade on the Hanscom campus, 17% of the students met the end-of-year benchmark for idea development in their fall Common Writing Assessment. By the spring, 56% of the first graders met the end-of-year benchmark. The visual presentation of the writing data in Appendix F is a first for the district. At the school level, the organization of this data can be used to delve into more specific questions about individual students.

When analyzing this data, we make initial observations and we ask questions that will drive next steps:

Initial observations

- There are grades across campuses for which fall scores are disparate, but spring scores are closer, e.g., Gr. 1.
- There are grades for which one campus scores consistently higher or lower than the other campus, e.g. Gr. 2 at Hanscom scores higher than Lincoln, but in Gr. 3, Lincoln scores higher.
- In the lower grades, there are many subscores on both campuses for which 0%-10% of the students met the end-of-year benchmark in the fall.
- On both campuses, there are grades in which a majority of students reaches the benchmarks on most subscores in the spring assessment, and there are other grades in which a majority does not.
- There is no grade on either campus in which any grade has 80% of its students reaching end-of-year benchmarks in all subscores.

Questions

- We know that grade-level teams score the Common Writing Assessments collectively; how can the district ensure so that all teachers at a grade level score in the same way?
- How does the district ensure that all grade-level teachers understand the expectations for writing in the grades above and/or below their own grade?
- What are the processes by which teachers use the results of the Common Writing Assessments to plan instruction?
- What types of professional development do teachers need and/or want to strengthen their practices in connecting writing data to specific instructional moves?
- How does this assessment contribute to decisions about providing intervention for specific students? What are the results of that intervention?

Fountas and Pinnell (See Appendix G for detailed scores)

The Fountas and Pinnell (F&P) Benchmark Assessment System is the district's primary reading assessment, given twice per year, for students in grades K-5. Different from the Common Writing Assessment and the Student Interview Model in math, F&P uses different benchmarks for each assessment cycle. In the fall, for instance, a score at Level C would be considered appropriate for a first grader, whereas a Level C at the end of the year for a first grader would be of concern. The district uses these benchmarks in recognition of the developmental process of becoming a more sophisticated reader throughout the school year.

With this report, we have the opportunity to examine F&P results for grades K-5 in one place. We have created stacked bars that indicate, for each grade and for each cycle, the percentage of students whose scores exceed expectations, meet expectations, approach expectations, and do not meet expectations. The visual presentation allows for comparisons across grades and across time.

Initial Observations

- On the Lincoln campus, scoring ranges have only a moderate degree of difference among the grade levels. On the Hanscom campus, scoring ranges vary greatly among the grades.
- On both campuses, at least 70% of students in first and second grade meet or exceed expectations in both the fall and spring cycles.
- The spring of Gr. 5 on the Lincoln campus shows the largest percentage of students not meeting benchmarks for that school. The spring of Gr. 4 is similar on the Hanscom campus.

Questions

- How do the F&P results correlate to other measures of reading, including report cards and MCAS?
- Similarly to the Common Writing Assessment, how does the district ensure that teachers across campuses and across grades are scoring these assessments in similar ways?
- How are results of F&P currently being used to drive instruction? How can the district support improvements in this process?
- We know that F&P scores contribute to the selection of students for reading intervention services. What is the impact of intervention on future reading scores?

Student Math Interview (See Appendix H for detailed scores)
For this analysis, we chose to measure whether students were meeting the end-of-year benchmark in the Student Math Interview, in exactly the way we did with the Common Writing Assessment. The result is a visually simple graph, with a design that shows the percentage of students in a grade who met the end-of-year benchmark in a particular grade. This assessment is given in grades K-3. Different from F&P, the Student Interview Model uses a single benchmark: the end-of-year expectations of skill and understanding.

The Student Interview Model includes four to six tasks each cycle, depending on grade level. The current report includes analysis of a subset of those tasks. Future reports will include data on all of the tasks.

Readers will note that scores for the second grade are extremely high in both the fall and spring cycles. When investigating the high scores last year, teachers and Math Specialists together determined that the assessment tasks were too easy and were therefore not providing the type of insight into student mathematical thinking needed to plan instruction. In response, teams have put new, more challenging, interview tasks into place for the current school year. Initial reports indicate that the revised tasks are providing higher quality information on student skill and understanding.

Initial Observations
- Students on the Hanscom campus score higher in the fall in Grades K, 1, and 3 than students on the Lincoln campus.
- The large majority of students in Kindergarten reaches the end-of-year benchmark by the spring.
- Grade 3 scores, overall, are the lowest fall scores; the spring scores are among the lowest.

Questions
- As with F&P and the Common Writing Assessment, how is the district ensuring that teachers across the campuses are scoring these assessments in similar ways?
- How does the information from the assessment get used when planning instruction?
- What should the district's goals be for growth in scores?
- How do these scores impact the selection of students for math intervention services?
- What is the impact of those intervention services?
- What supports should the district provide to ensure that teachers' have maximum ability to differentiate instruction based on the results of these assessments?

STAR Math (See Appendix I for detailed scores)
The district has completed its first full year of STAR Math assessments. We have also completed the first of this year's three cycles. We expect that the process of fully understanding this assessment will take several full years.

Developed by Renaissance Learning, STAR Math has a multitude of report templates from which to choose when analyzing data. A significant portion of last year's learning process for the district was dedicated to understanding the variety of reports and the utility of information each provided. Some reports compare students' achievement against national norms; some compare them to Massachusetts state standards. STAR Math provides both a scaled score and achievement levels; those levels mimic the ones used in MCAS.

For our analysis in this report, we have chosen a grade-level scatter plot, with three snapshots from a single grade (Appendix H). One graph compares Spring 2015 MCAS data with Spring 2015 STAR Math. The second graph shows the same data set, with an overlay that captures the frequency with which MCAS and STAR Math levels overlap. The third chart shows a similar overlay, this time with a comparison of Fall 2014 STAR Math with Spring 2015 MCAS scores. All three graphs use district-wide scores from Gr. 4.

Initial Observations

- There appears to be a correlation between MCAS and STAR Math on both charts; the degree of correlation varies.
- There are outliers on each chart, but few of them.
- When the overlay is placed on the Spring/Spring comparison, the scores outside the shaded sections appear more frequently to the right. This suggests that in this particular comparison, when the STAR/MCAS levels are discrepant for a student, it is likely that the student has scored higher on STAR than on MCAS.
- When the overlay is placed on the Fall 2014/Spring 2015 chart, the pattern is reversed: Scores outside the shaded sections are more likely to appear on the left.

Questions

- What is the relationship between STAR Math results and student performance in the classroom?
- Of the students who score outside the overlays on either the Fall/Spring or the Spring/Spring comparison, which are the students about whom we should be concerned?
- When we provide intervention to students identified in part through STAR Math data, what is the impact of the intervention?
- Is it possible to use STAR Math results for making specific instructional decisions regarding individual students?
- Over time, can we establish LPS-specific benchmarks for fall, winter, and spring START scaled scores?

NEXT STEPS
Administration is eager to share these new presentations of data with faculty. We expect that these visual displays of information will be key tools in examining not only patterns of achievement and growth among groups of children, but also the details of achievement and growth for individual students.

The November report about student achievement will discuss achievement gaps in light of subgroup performance on the Key Yearly Measures. We will present a more detailed explanation of action steps at the school and district levels with that November report.

Appendix A: Description of Key Yearly Measures

Appendix B: Performance
2015 Performance Levels: State, District, Schools by Grade in ELA, Math, Science/Engineering

Appendix C: Performance
2011-2015 Cohort Comparisons at Lincoln School by Grade in ELA, Math, Science/Engineering

Appendix D: Comparison to Surrounding Communities
2015 MCAS Proficient + Advanced; CPI, and SGP for Lincoln School and Lexington

Appendix E: Growth
Spring 2015 MCAS School Achievement and Growth (SGP): ELA and mathematics scores by grade level: 4-8 Lincoln School, Hanscom Middle School

Appendix F: Common Writing Assessment Scores, 2015, for Grades 1-5 by school; depicted as percentage of students meeting end-of-year benchmark

Appendix G: Fountas and Pinnell Rading Assessments (F&P), 2015, for Grades 1-5 by school; depicted as percentage of students exceeding expectations, meeting expectations, approaching expectations, and not meeting expectations

Appendix H: Student Interview Model in Math, 2015, for Grades K-3 by school; depicted as percentage of students meeting end-of-year expectations

Appendix I: STAR Math Fall 2014 and Spring 2015 compared to Spring 2015 MCAS results, Grade 4

Appendix A: Key Yearly Measures

KEY LITERACY ASSESSMENTS

1. MCAS, once per year
As the state's existing measure of academic achievement, MCAS provides a yearly snapshot of our students' abilities in both reading and writing in grades 3-8. The data services provided by the Department of Elementary and Secondary Education (DESE) allow the district to analyze results in numerous ways, including growth scores over time. The English Language Arts MCAS provides information about both reading and writing.
http://www.doe.mass.edu/mcas/

2. Common Writing Assessment, twice per year
The common writing assessment is a measure designed by educators within the Lincoln Public Schools. For most grades, the writing prompts given in the fall and spring are identical. This similarity allows for a clear analysis of the student's growth within one writing genre. Classroom teachers implement the assessment in a group setting, and scoring takes place as a collaborative process. The scoring criteria derive from the Six-Trait Writing Rubric, a guide used widely across the country.
http://educationnorthwest.org/traits/traits-rubrics

3. Fountas and Pinnell (F&P), twice per year
The Benchmark Assessment System, developed by Fountas and Pinnell (F&P) is designed to give insight not only into a student's current levels of reading achievement, but also into the specific reading strategies over which the student has control and does not yet have control.

There are two segments to the administration of F&P: oral reading and the comprehension conversation. The student first reads aloud from a short text the assessor has selected. As the student reads, the assessor records every vocalization made by the student. During the comprehension conversation, the assessor invites the student to comment on the text and then asks a series of prompts designed to elicit information about the student's understanding within, beyond, and about the text.

A typical administration of F&P may include the use of two to five texts. After administration of the first text, the assessor makes a determination as to which text should be read next: students who score well initially will read a slightly more difficult text, and students who struggle will read a slightly less challenging text. The assessment continues until the assessor has obtained clear information about reading levels that may be considered instructional, independent, and/or hard for the student. Every administration of F&P will include both fiction and non-fiction texts.
http://www.heinemann.com/fountasandpinnell/BAS2_Overview.aspx

KEY MATH ASSESSMENTS

1. MCAS, once per year
Use of MCAS as a measure of achievement in mathematics parallels its use previously described in literacy.
http://www.doe.mass.edu/mcas/

2. Student Interview Model, 2-3 times per year
In grades K-3, teachers assess student understanding in math through a student interview model. In grades K-2, we use Assessing Math Concepts, a student interview protocol created by noted math educator Kathy Richardson, whose protocols allow assessors to probe for children's

mathematical understandings via guided, standardized conversations. In grade 3, the district has developed its own measure, one focused on multiplication, modeling it after the Assessment Math Concepts/Kathy Richardson protocols.

The student interviews yield in-depth and nuanced information about student skills and content knowledge. Similar to the Fountas and Pinnell assessment in reading, this model requires the assessor to adapt the protocol depending on the performance of the child during the interview. If a student completes one aspect of the math task with ease, for instance, the assessor may opt to skip steps in the assessment sequence in order to probe at a more sophisticated level. Scoring of the student interviews describe levels of facility with the assessed concepts, with descriptors such as "applies," "practice," and "instructional" used at multiple points.
http://www.didax.com/KathyRichardson/

3. STAR Math, three times per year
STAR Math assessments are a new entry into our portfolio of district-wide assessments. After an extensive review of options, LPS selected STAR Math as a measure that would provide information not only about individual student skills, but also an overall picture of achievement in mathematics longitudinally through time. 2015-2016 marks the first year of full implementation, with three cycles: at the beginning, middle, and end of the school year. The third cycle of STAR will take place in the last week of May and first week of June.

STAR Math is a brief online measure of student growth and achievement. Each administration takes roughly thirty minutes for students to complete.

STAR Math is an adaptive assessment, meaning that the program adapts its level of challenge as a student progresses through the test. When a student answers a question in geometry correctly, for instance, the next question related to geometry will be slightly more difficult.

In order for the district to determine the full benefit of the STAR Math assessment, we will need to complete at least two years of assessment cycles. The online environment of the measure and its adaptive nature require that we make judgments only after the district has had significant experience with the measure.
http://www.renaissance.com/Products/STAR-Assessments/STAR-Math

Appendix B

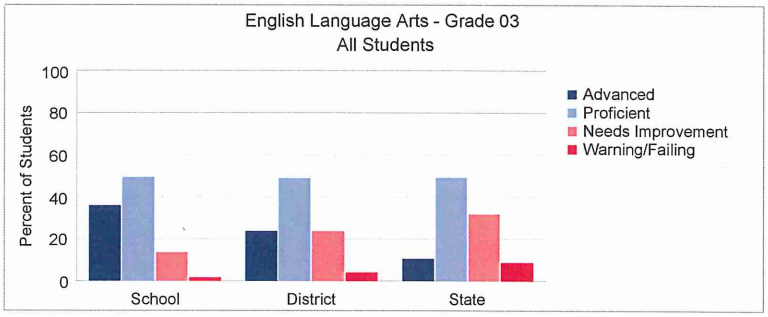
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

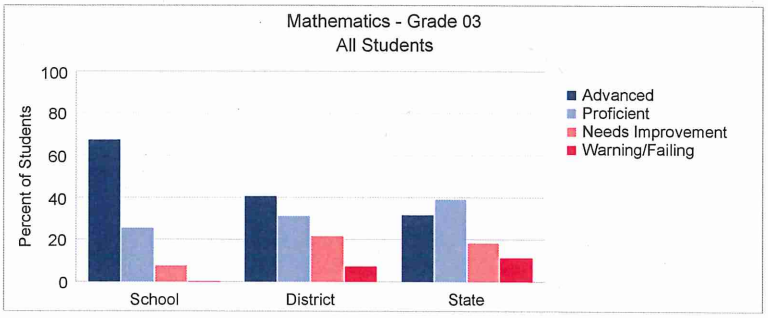
District: Lincoln
School: Lincoln School
Grade: 03

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	24	36	24	11
Proficient	33	49	49	49
Needs Improvement	9	13	24	32
Warning/Failing	1	1	4	9
Total Included	67			



Mathematics	N Included	% School	% District	% State
Advanced	45	67	40	32
Proficient	17	25	31	39
Needs Improvement	5	7	21	18
Warning/Failing	0	-	7	11
Total Included	67			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

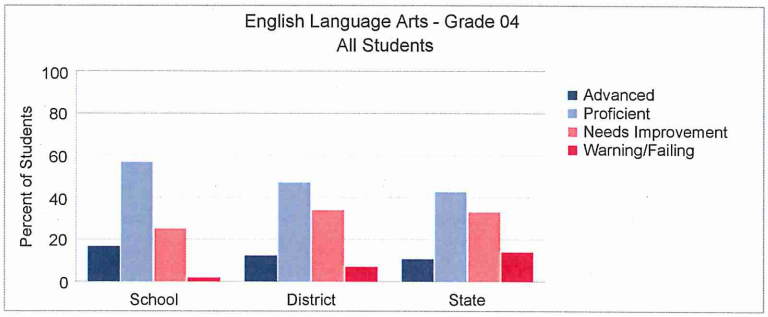
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

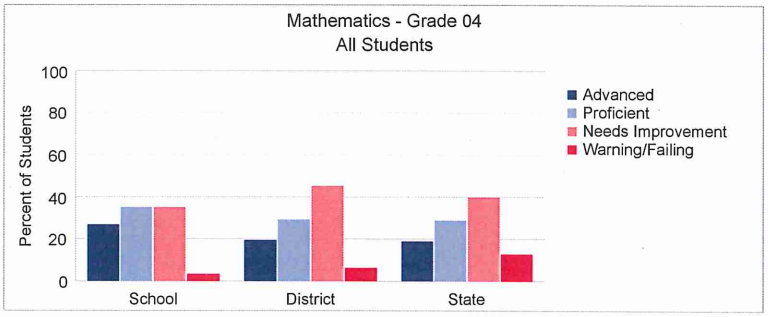
District: Lincoln
School: Lincoln School
Grade: 04

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	10	17	12	11
Proficient	34	57	47	43
Needs Improvement	15	25	34	33
Warning/Failing	1	2	7	14
Total Included	60			



Mathematics	N Included	% School	% District	% State
Advanced	16	27	19	19
Proficient	21	35	29	29
Needs Improvement	21	35	45	40
Warning/Failing	2	3	6	13
Total Included	60			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

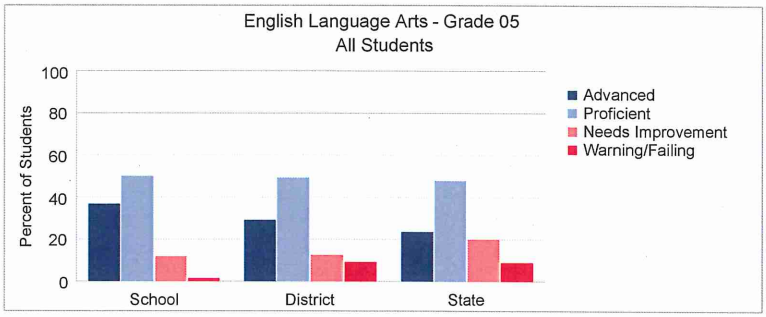
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

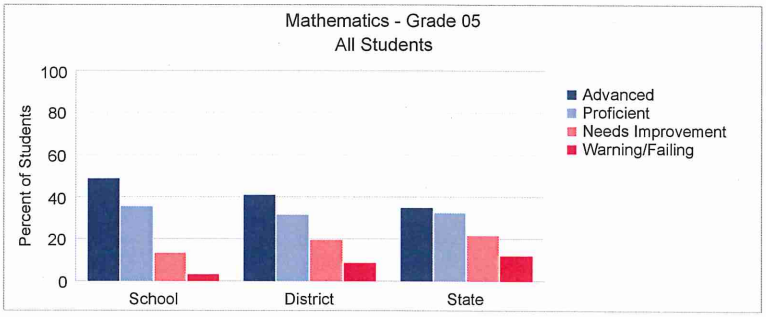
District: Lincoln
School: Lincoln School
Grade: 05

All Students

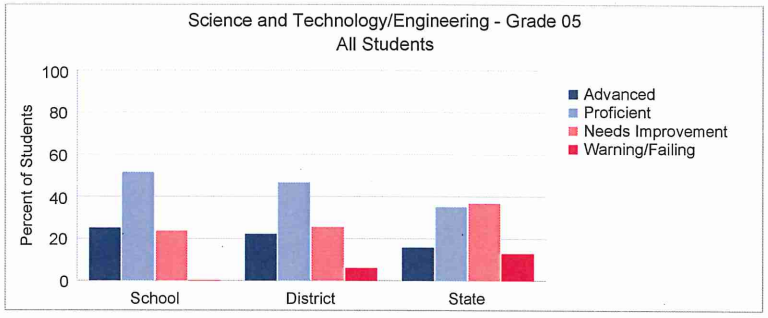
English Language Arts	N Included	% School	% District	% State
Advanced	25	37	29	23
Proficient	34	50	49	48
Needs Improvement	8	12	12	20
Warning/Failing	1	1	9	9
Total Included	68			



Mathematics	N Included	% School	% District	% State
Advanced	33	49	41	35
Proficient	24	35	31	32
Needs Improvement	9	13	19	21
Warning/Failing	2	3	8	12
Total Included	68			



Science and Technology/ Engineering	N Included	% School	% District	% State
Advanced	17	25	22	16
Proficient	35	51	47	35
Needs Improvement	16	24	25	37
Warning/Failing	0	-	6	13
Total Included	68			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

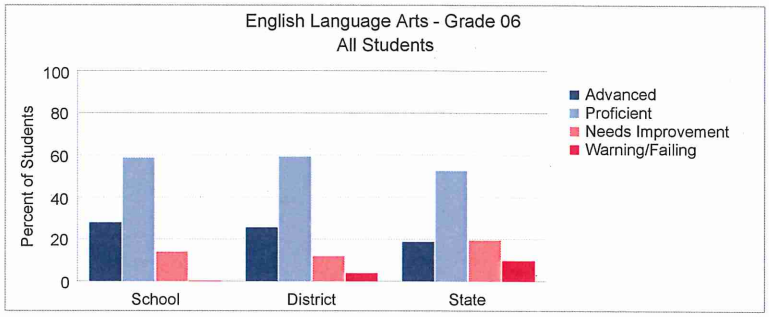
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

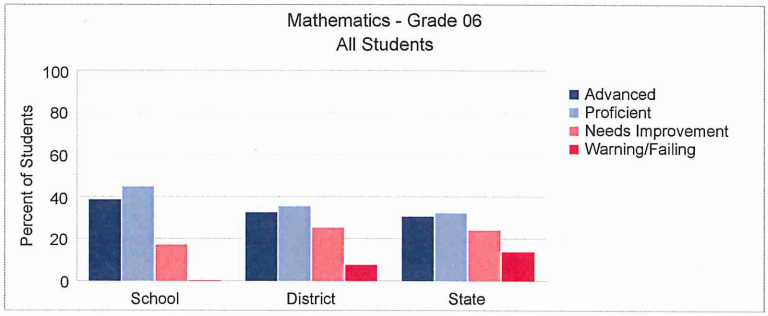
District: Lincoln
School: Lincoln School
Grade: 06

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	18	28	25	19
Proficient	38	58	59	52
Needs Improvement	9	14	12	19
Warning/Failing	0	-	4	10
Total Included	65			



Mathematics	N Included	% School	% District	% State
Advanced	25	38	32	30
Proficient	29	45	35	32
Needs Improvement	11	17	25	24
Warning/Failing	0	-	7	14
Total Included	65			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

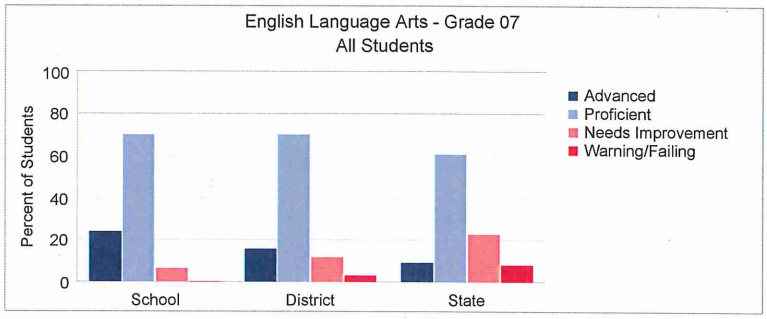
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

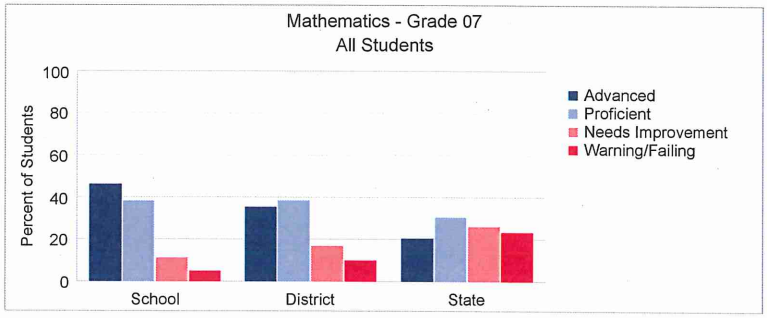
District: Lincoln
School: Lincoln School
Grade: 07

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	15	24	16	9
Proficient	44	70	70	60
Needs Improvement	4	6	12	23
Warning/Failing	0	-	3	8
Total Included	63			



Mathematics	N Included	% School	% District	% State
Advanced	29	46	35	20
Proficient	24	38	38	30
Needs Improvement	7	11	17	26
Warning/Failing	3	5	10	23
Total Included	63			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

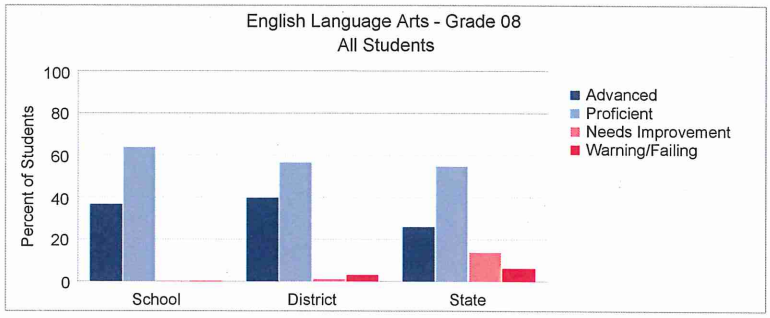
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

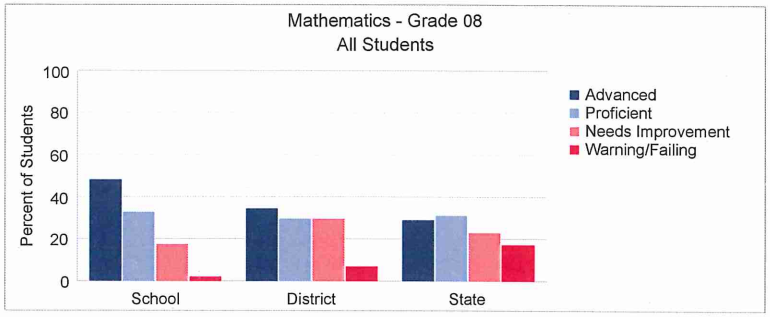
District: Lincoln
School: Lincoln School
Grade: 08

All Students

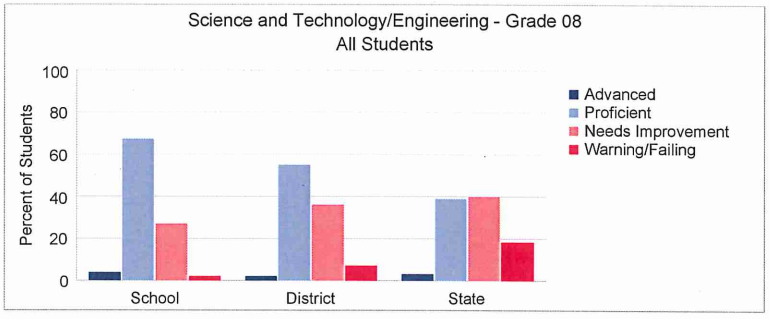
English Language Arts	N Included	% School	% District	% State
Advanced	19	37	40	26
Proficient	33	63	56	54
Needs Improvement	0	-	1	14
Warning/Failing	0	-	3	6
Total Included	52			



Mathematics	N Included	% School	% District	% State
Advanced	25	48	34	29
Proficient	17	33	29	31
Needs Improvement	9	17	29	23
Warning/Failing	1	2	7	17
Total Included	52			



Science and Technology/ Engineering	N Included	% School	% District	% State
Advanced	2	4	2	3
Proficient	35	67	55	39
Needs Improvement	14	27	36	40
Warning/Failing	1	2	7	18
Total Included	52			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

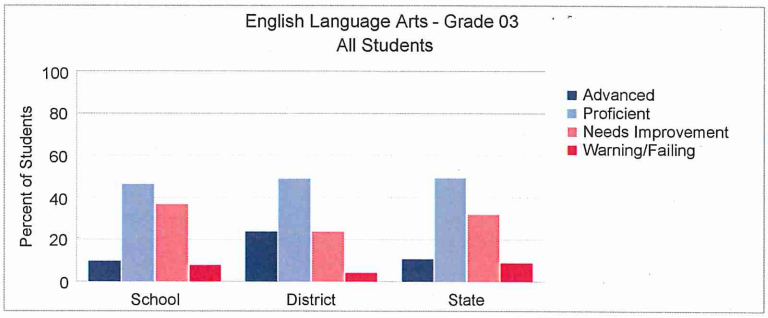
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

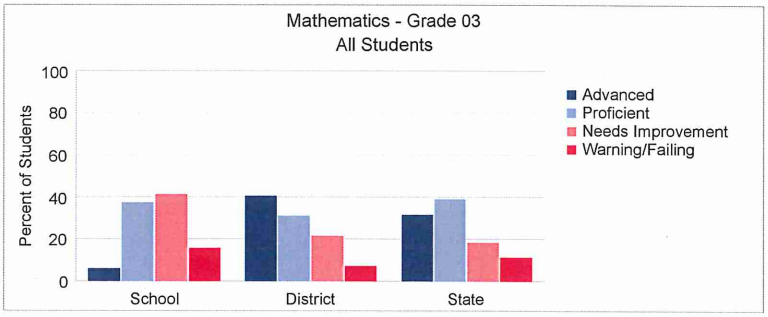
District: Lincoln
School: Hanscom Primary
Grade: 03

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	5	10	24	11
Proficient	24	46	49	49
Needs Improvement	19	37	24	32
Warning/Failing	4	8	4	9
Total Included	52			



Mathematics	N Included	% School	% District	% State
Advanced	3	6	40	32
Proficient	19	37	31	39
Needs Improvement	21	41	21	18
Warning/Failing	8	16	7	11
Total Included	51			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

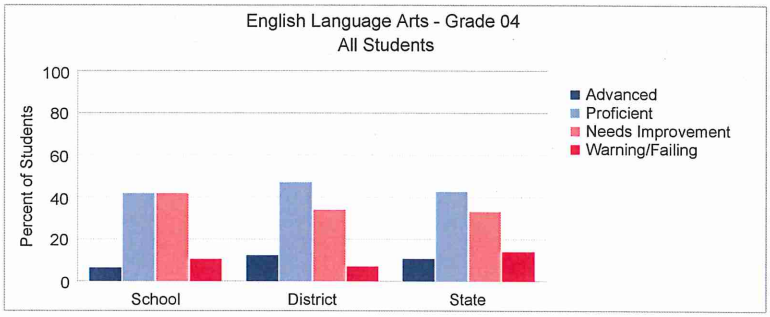
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

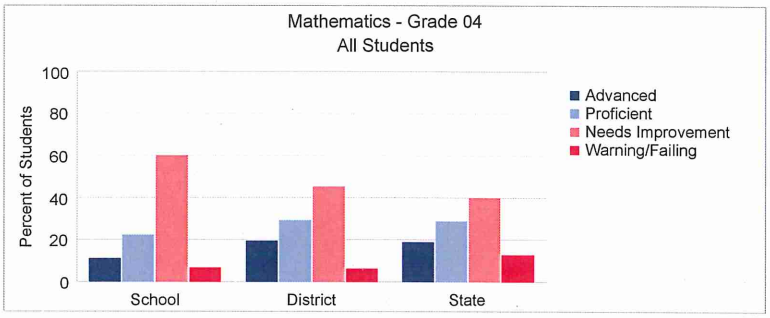
District: Lincoln
School: Hanscom Middle
Grade: 04

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	3	6	12	11
Proficient	20	42	47	43
Needs Improvement	20	42	34	33
Warning/Failing	5	10	7	14
Total Included	48			



Mathematics	N Included	% School	% District	% State
Advanced	5	11	19	19
Proficient	10	22	29	29
Needs Improvement	27	60	45	40
Warning/Failing	3	7	6	13
Total Included	45			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

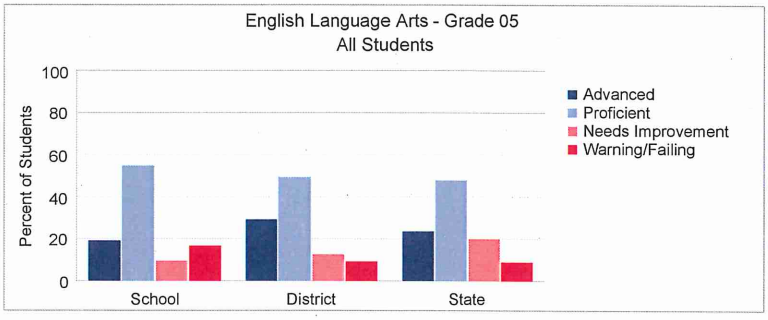
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

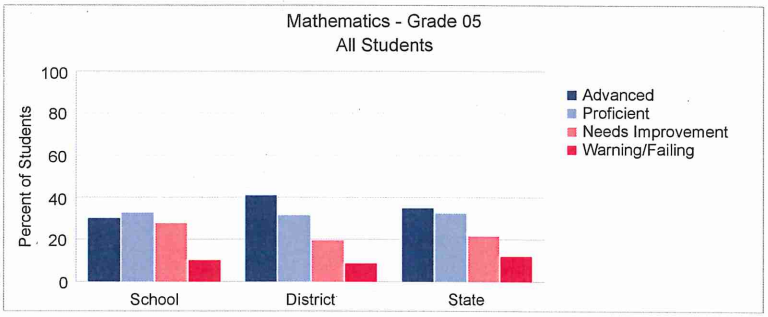
District: Lincoln
School: Hanscom Middle
Grade: 05

All Students

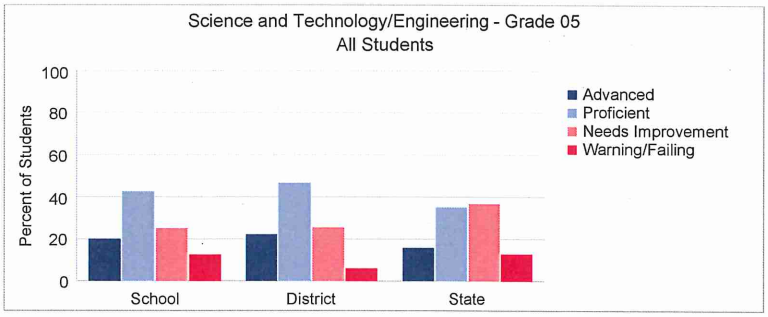
English Language Arts	N Included	% School	% District	% State
Advanced	8	19	29	23
Proficient	23	55	49	48
Needs Improvement	4	10	12	20
Warning/Failing	7	17	9	9
Total Included	42			



Mathematics	N Included	% School	% District	% State
Advanced	12	30	41	35
Proficient	13	32	31	32
Needs Improvement	11	28	19	21
Warning/Failing	4	10	8	12
Total Included	40			



Science and Technology/ Engineering	N Included	% School	% District	% State
Advanced	8	20	22	16
Proficient	17	42	47	35
Needs Improvement	10	25	25	37
Warning/Failing	5	12	6	13
Total Included	40			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

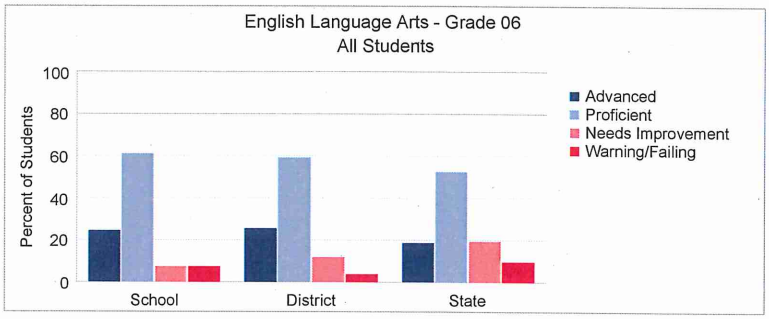
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

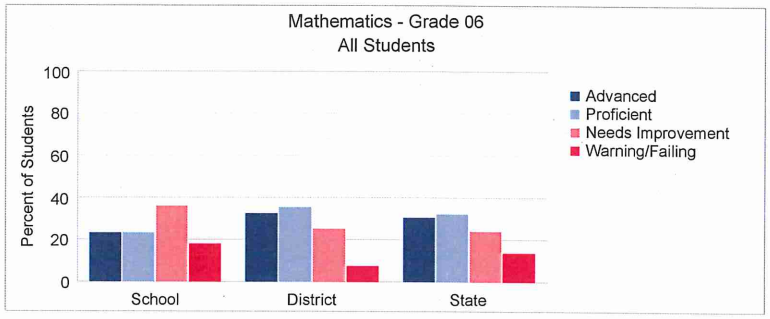
District: Lincoln
School: Hanscom Middle
Grade: 06

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	10	24	25	19
Proficient	25	61	59	52
Needs Improvement	3	7	12	19
Warning/Failing	3	7	4	10
Total Included	41			



Mathematics	N Included	% School	% District	% State
Advanced	9	23	32	30
Proficient	9	23	35	32
Needs Improvement	14	36	25	24
Warning/Failing	7	18	7	14
Total Included	39			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

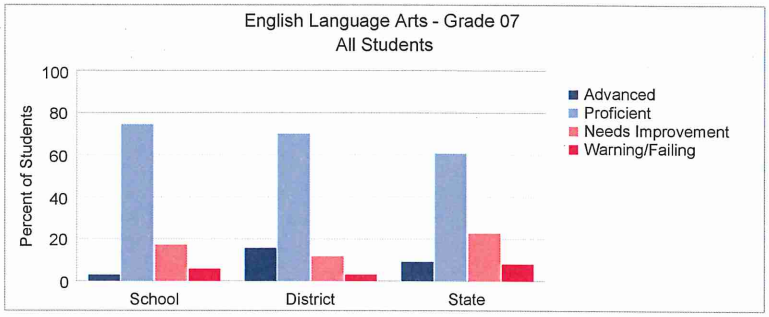
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

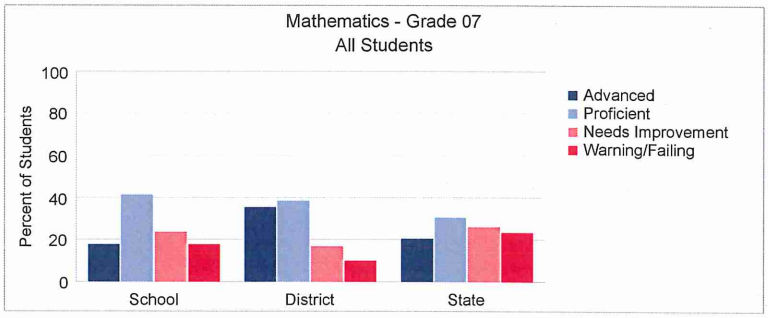
District: Lincoln
School: Hanscom Middle
Grade: 07

All Students

English Language Arts	N Included	% School	% District	% State
Advanced	1	3	16	9
Proficient	26	74	70	60
Needs Improvement	6	17	12	23
Warning/Failing	2	6	3	8
Total Included	35			



Mathematics	N Included	% School	% District	% State
Advanced	6	18	35	20
Proficient	14	41	38	30
Needs Improvement	8	24	17	26
Warning/Failing	6	18	10	23
Total Included	34			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

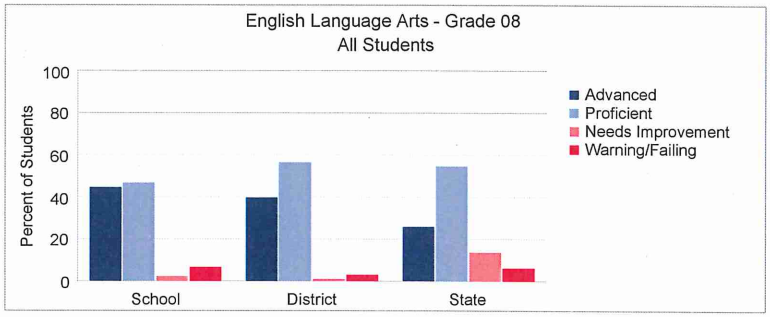
Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS Results by Achievement Level
School, District and State Comparison

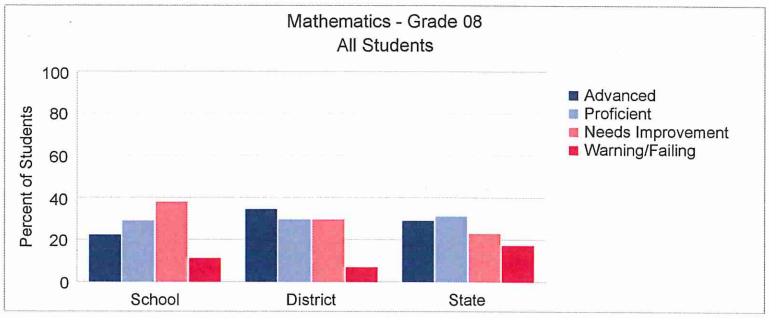
District: Lincoln
School: Hanscom Middle
Grade: 08

All Students

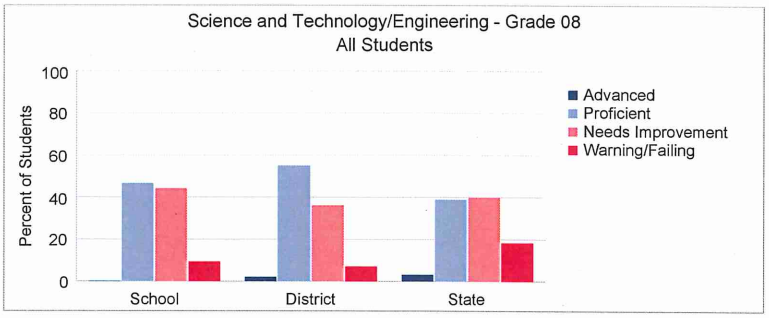
English Language Arts	N Included	% School	% District	% State
Advanced	20	44	40	26
Proficient	21	47	56	54
Needs Improvement	1	2	1	14
Warning/Failing	3	7	3	6
Total Included	45			



Mathematics	N Included	% School	% District	% State
Advanced	10	22	34	29
Proficient	13	29	29	31
Needs Improvement	17	38	29	23
Warning/Failing	5	11	7	17
Total Included	45			



Science and Technology/ Engineering	N Included	% School	% District	% State
Advanced	0	-	2	3
Proficient	20	47	55	39
Needs Improvement	19	44	36	40
Warning/Failing	4	9	7	18
Total Included	43			



State-level results are estimated using a representative sample of students from across Massachusetts, since only a portion of students in grades 3-8 participated in MCAS in ELA and Mathematics.

NOTE: Achievement level percentages are not calculated for student groups of less than 10.

Appendix C

5-Year MCAS Cohort Comparison
Lincoln School, 2011-2015

ELA	% Advanced					% Proficient					% Needs Improvement					% Warning				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Gr. 3	36	22	18	20	19	49	60	59	57	60	13	16	22	21	19	1	2	1	1	2
Gr. 4	17	16	10	13	15	57	51	61	67	58	25	27	28	19	22	2	6	1	0	5
Gr. 5	37	33	35	21	33	50	48	54	62	52	12	18	11	12	15	1	2	0	4	0
Gr. 6	28	25	19	46	30	58	64	72	42	60	14	9	6	10	8	0	2	4	1	1
Gr. 7	24	10	30	22	26	70	82	56	66	66	6	8	13	10	9	0	0	1	1	6
Gr. 8	37	42	39	43	32	63	54	61	52	55	0	3	0	5	2	0	1	0	0	10

MATH	% Advanced					% Proficient					% Needs Improvement					% Warning				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Gr. 3	67	71	50	53	32	25	21	43	30	49	7	5	7	16	17	0	3	0	1	2
Gr. 4	27	37	32	33	31	35	34	33	43	41	35	26	33	24	29	3	3	1	0	0
Gr. 5	49	43	59	48	43	35	46	24	30	36	13	10	17	16	10	3	2	0	5	6
Gr. 6	38	50	33	39	30	45	27	43	39	40	17	20	22	14	25	0	3	2	7	5
Gr. 7	46	38	46	31	47	38	40	37	44	29	11	15	13	24	14	5	6	4	1	10
Gr. 8	48	39	36	55	39	33	42	48	25	31	17	16	14	16	18	2	3	2	4	13

SCI.	% Advanced					% Proficient					% Needs Improvement					% Warning				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
Gr. 5	25	39	52	34	27	51	39	29	45	47	24	21	19	20	23	0	0	0	2	3
State	16	20	20	22	14	35	33	31	30	36	37	34	36	34	36	13	13	12	14	15
Gr. 8	4	23	9	21	16	67	51	61	57	51	27	21	28	12	25	2	4	2	9	8
State	3	4	4	5	4	39	38	35	38	51	40	41	43	38	25	18	18	18	20	8

Appendix D

MCAS Results, Spring 2015: Comparison to Other Communities.

Please note that the 2014-2015 comparisons are for two different cohorts of eighth grade students. Districts without scores for 2015 are those that opted to take PARCC.

GR. 8 ACHIEVEMENT

Percentage of students at Proficient or Advanced, and Composite Performance Index (CPI)

	ELA % P + A		ELA CPI		Math % P + A		Math CPI	
	2015	2014	**2015**	2014	**2015**	2014	**2015**	2014
Bedford	--	89	--	96	--	69	--	86
Concord	--	95	--	98	--	78	--	90
Lexington	95	96	98	98	89	86	96	94
LPS: District	96	93	98	98	64	67	84	84
LPS: HMS	91	90	94	97	51	51	77	75
LPS: Lincoln School	100	96	100	98	81	81	93	92
Sudbury	--	93	--	97	--	78	--	90
Wayland	--	96	--	98	--	82	--	92
Weston	--	96	--	98	--	72	--	87

GR. 8 GROWTH

Median Student Growth Percentile (SGP)

	ELA			Math		
	2015 SGP	2015 N students	2014 SGP	2015 SGP	2015 N students	2014 SGP
Bedford	--	--	58	--	--	50
Concord	--	--	50	--	--	52
Lexington	56	524	59	65	526	60
Lincoln Public Schools	64	76	68	55	77	61
LPS: Hanscom Middle School	48	26	59	45	26	63
LPS: Lincoln School	69	50	68	58	51	56
Sudbury	--	--	46	--	--	42
Wayland	--	--	61	--	--	69
Weston	--	--	46	--	--	55

Source: Massachusetts DESE website

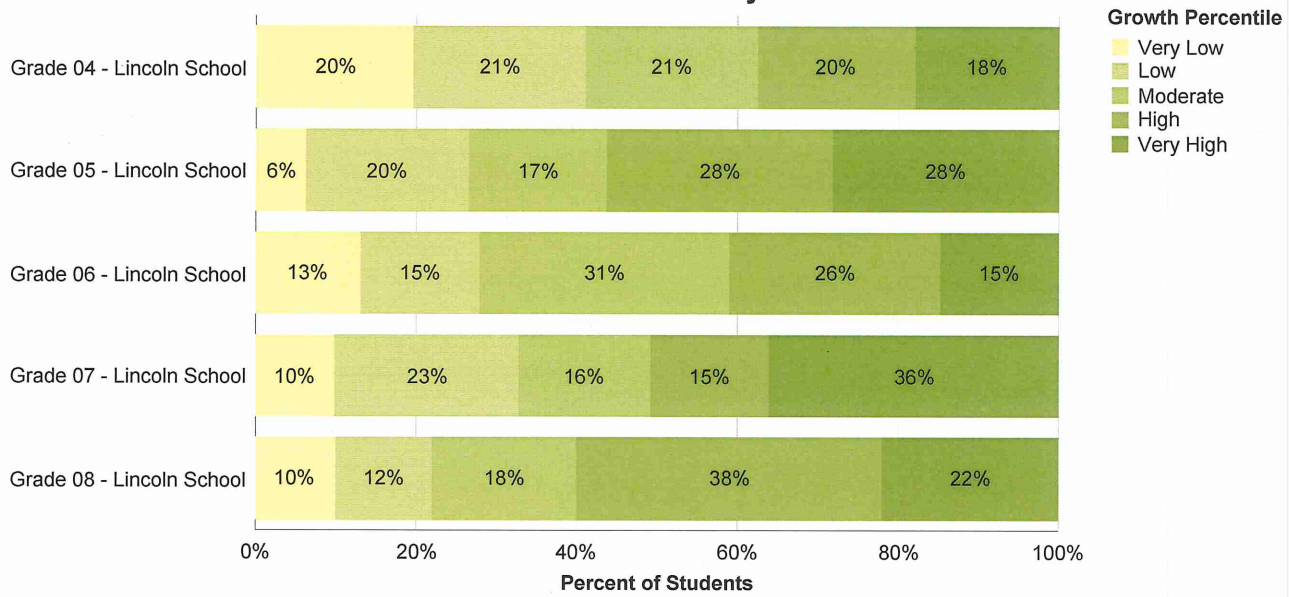
Appendix E

Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS School Growth Distribution
English Language Arts

District: Lincoln
Subject: English Language Arts

Growth Distribution by Grade



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

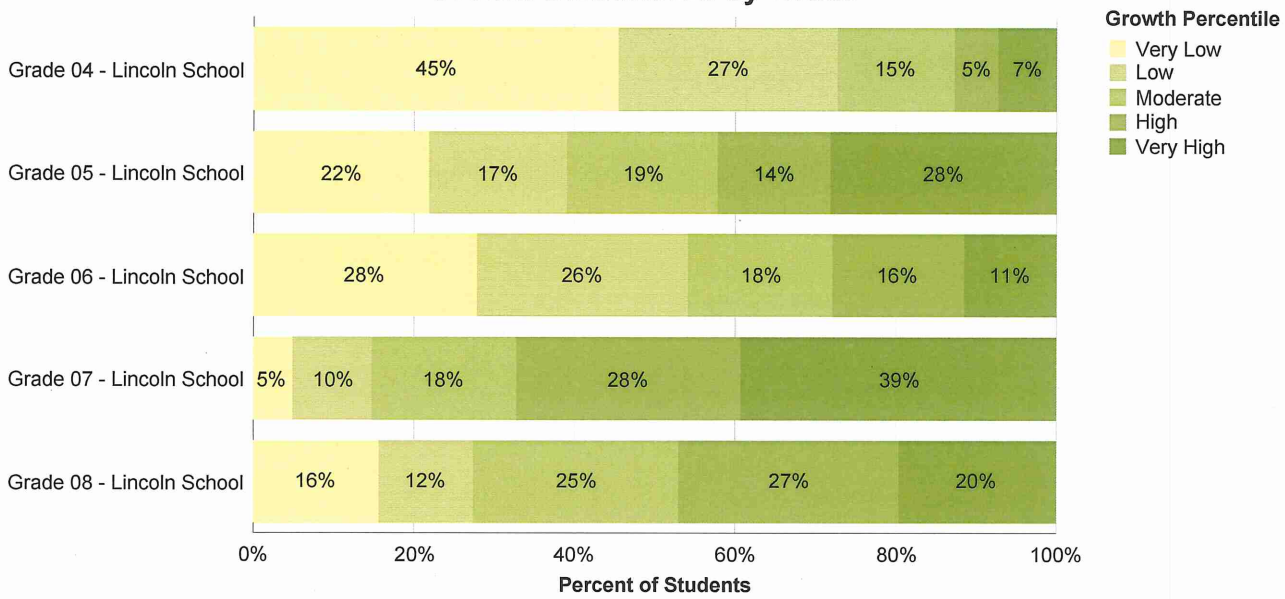
	Very Low	Low	Moderate	High	Very High	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04 - Lincoln School	11	12	12	11	10	48.0	56	73	60
Grade 05 - Lincoln School	4	13	11	18	18	65.0	64	87	68
Grade 06 - Lincoln School	8	9	19	16	9	54.0	61	86	65
Grade 07 - Lincoln School	6	14	10	9	22	61.0	61	94	63
Grade 08 - Lincoln School	5	6	9	19	11	69.0	50	100	52

Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS School Growth Distribution
Mathematics

District: Lincoln
Subject: Mathematics

Growth Distribution by Grade



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

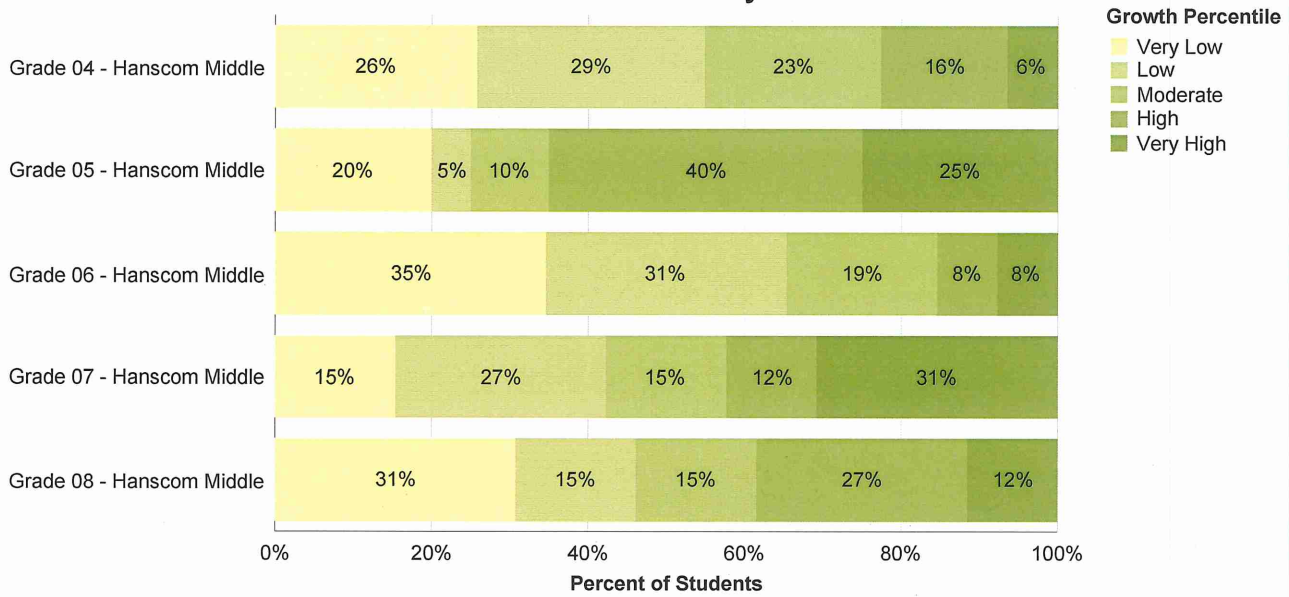
	Very Low	Low	Moderate	High	Very High	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04 - Lincoln School	25	15	8	3	4	26.0	55	62	60
Grade 05 - Lincoln School	14	11	12	9	18	54.0	64	84	68
Grade 06 - Lincoln School	17	16	11	10	7	35.0	61	83	65
Grade 07 - Lincoln School	3	6	11	17	24	77.0	61	84	63
Grade 08 - Lincoln School	8	6	13	14	10	58.0	51	81	52

Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS School Growth Distribution
Mathematics

District: Lincoln
Subject: Mathematics

Growth Distribution by Grade



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

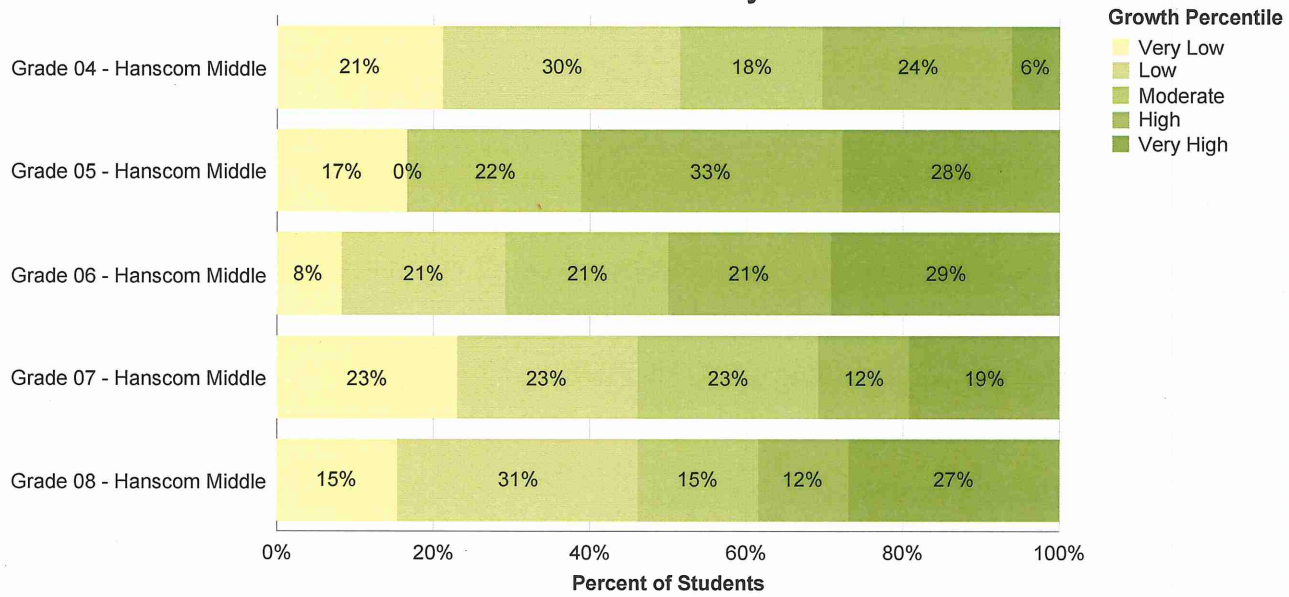
	Very Low	Low	Moderate	High	Very High	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04 - Hanscom Middle	8	9	7	5	2	37.0	31	33	45
Grade 05 - Hanscom Middle	4	1	2	8	5	66.5	20	63	40
Grade 06 - Hanscom Middle	9	8	5	2	2	33.0	26	46	39
Grade 07 - Hanscom Middle	4	7	4	3	8	55.5	26	59	34
Grade 08 - Hanscom Middle	8	4	4	7	3	45.0	26	51	45

Massachusetts Department of ELEMENTARY & SECONDARY EDUCATION

Spring 2015 MCAS School Growth Distribution
English Language Arts

District: Lincoln
Subject: English Language Arts

Growth Distribution by Grade



Vertical lines at 20%, 40%, 60%, 80% and 100% represent the Statewide distribution for very low, low, moderate, high and very high growth.

	Very Low	Low	Moderate	High	Very High	Median SGP	N Students (SGP)	% Proficient or Higher	N Students (Ach. Level)
Grade 04 - Hanscom Middle	7	10	6	8	2	37.0	33	48	48
Grade 05 - Hanscom Middle	3	0	4	6	5		18	74	42
Grade 06 - Hanscom Middle	2	5	5	5	7	58.0	24	85	41
Grade 07 - Hanscom Middle	6	6	6	3	5	44.5	26	77	35
Grade 08 - Hanscom Middle	4	8	4	3	7	47.5	26	91	45

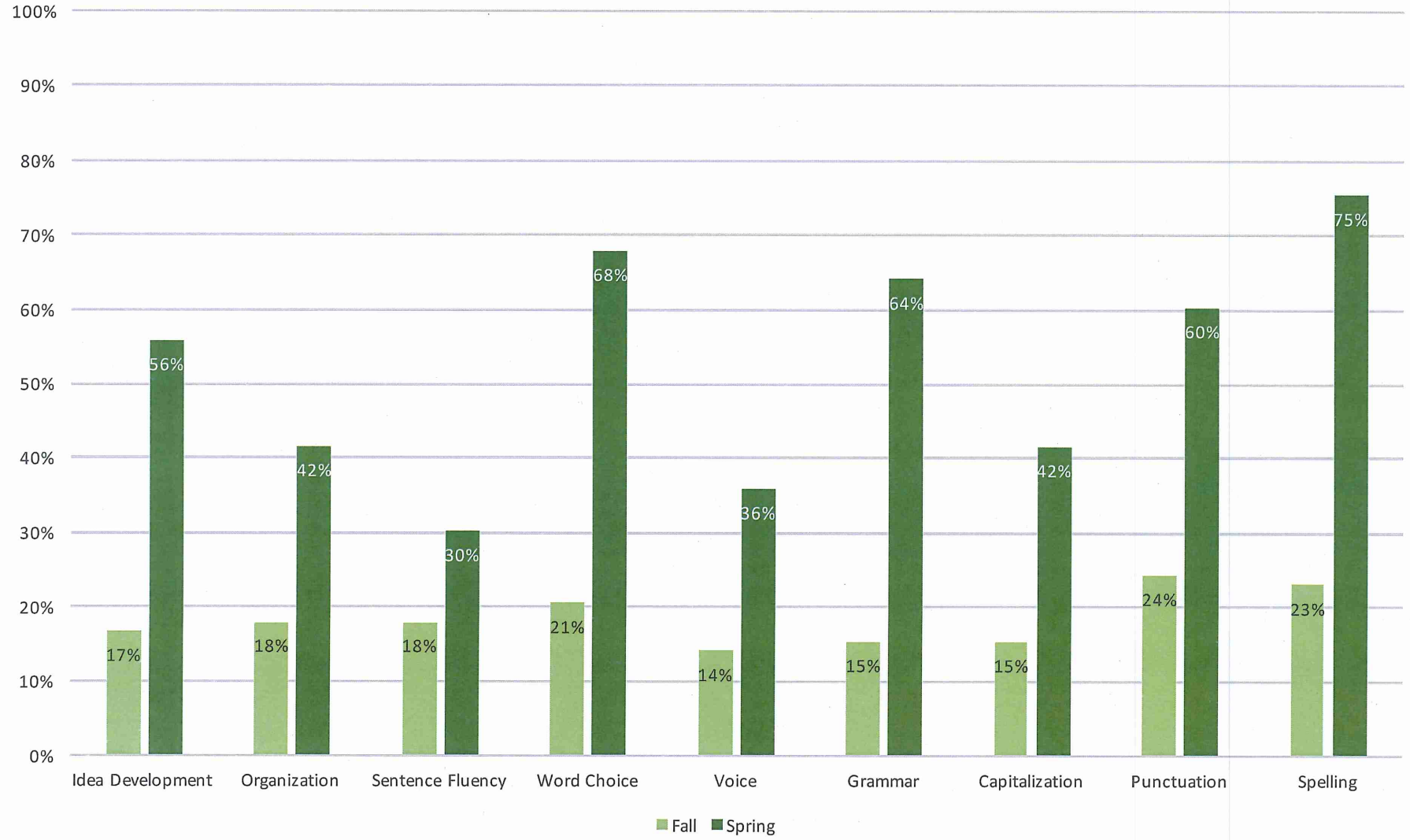
Appendix F

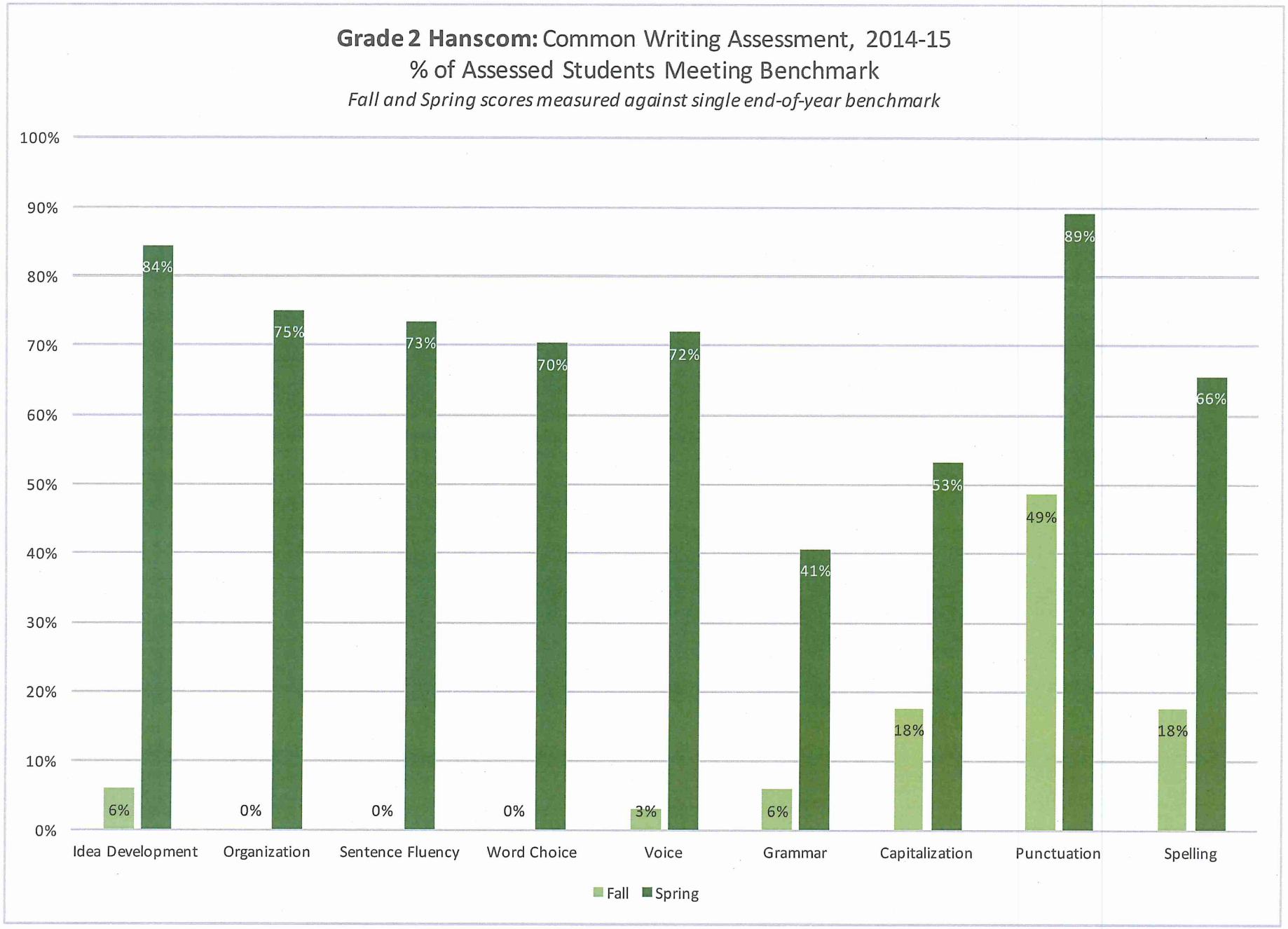
Appendix F

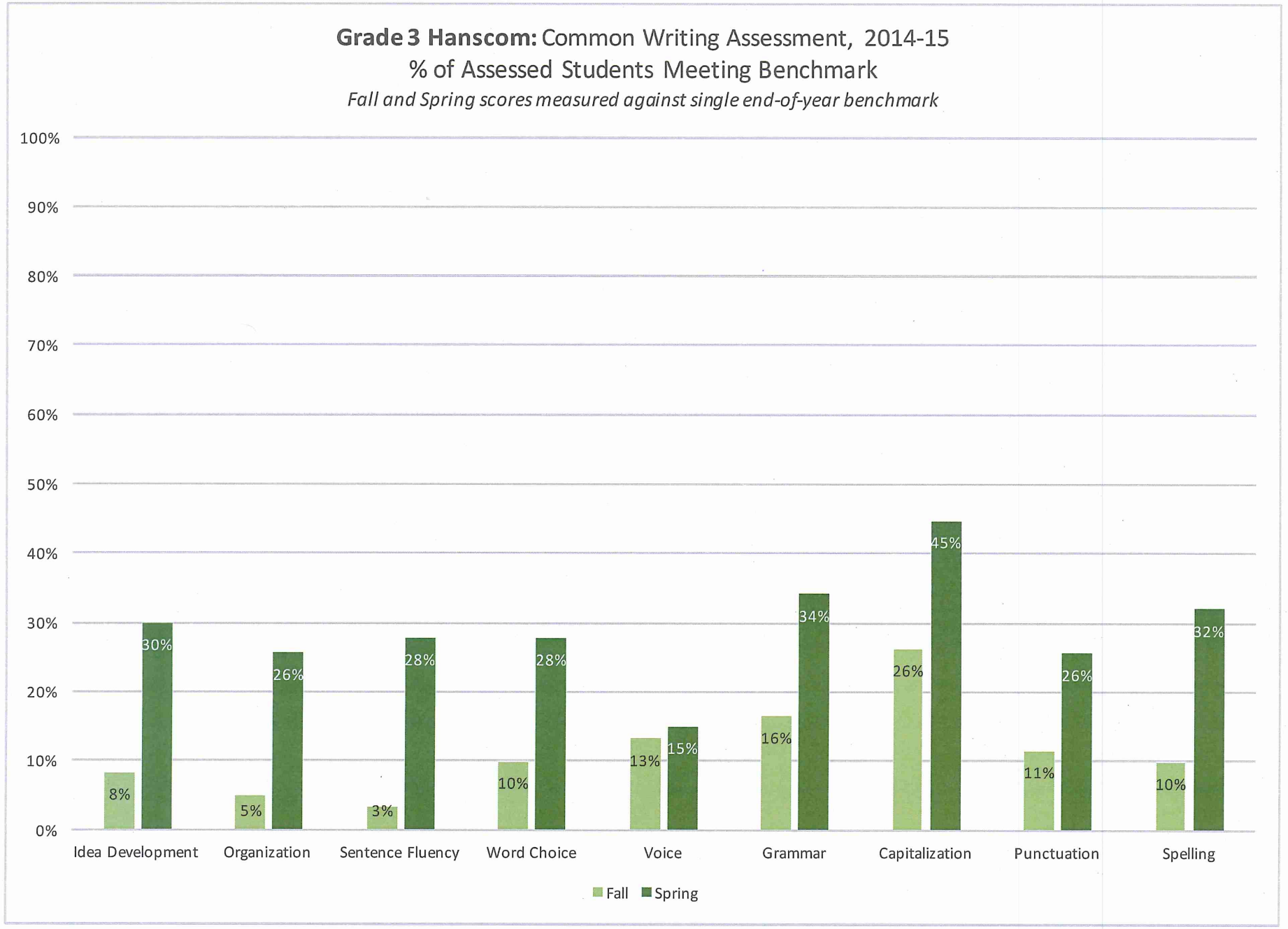
Grade 1 Hanscom: Common Writing Assessment, 2014-15

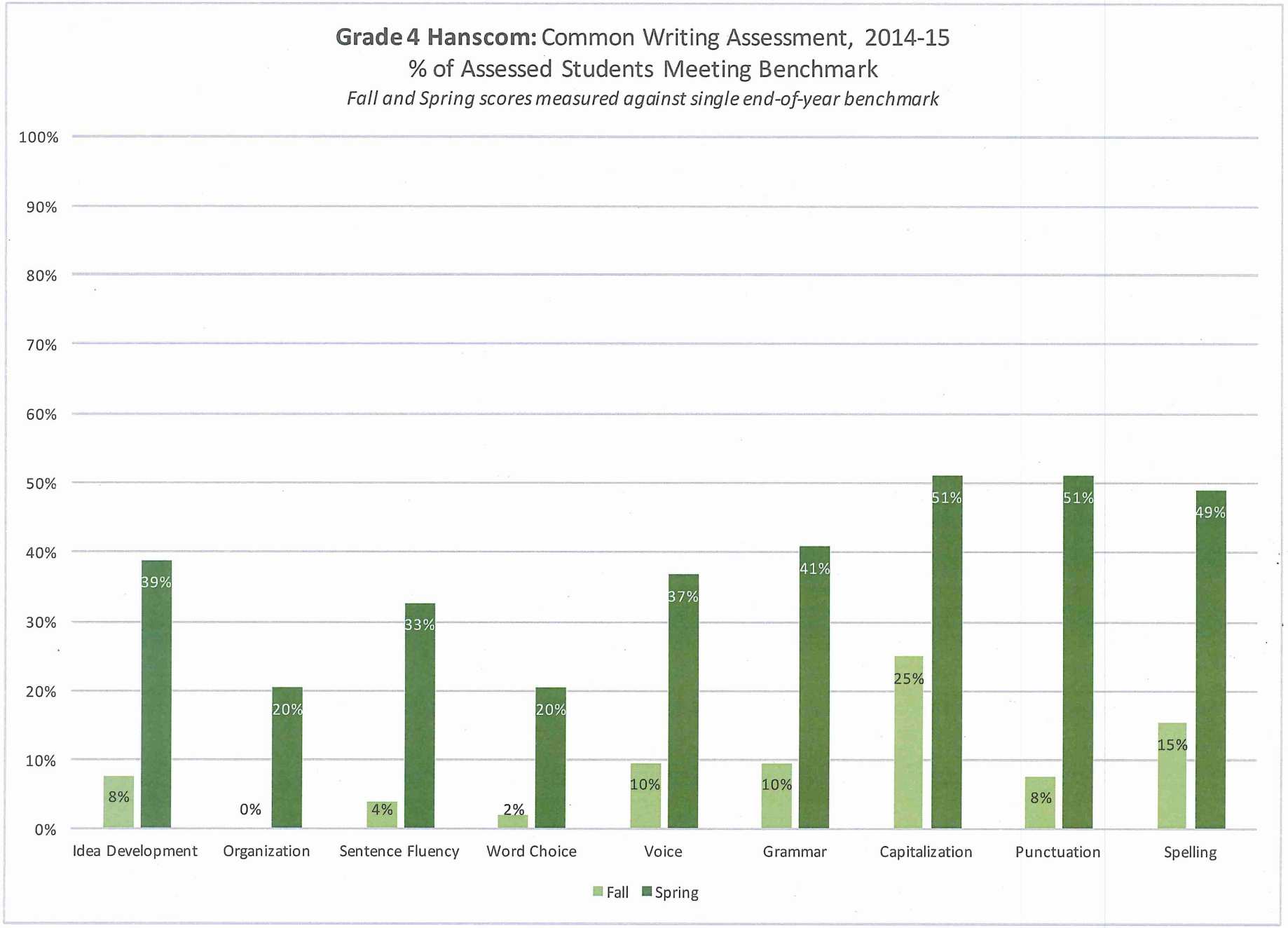
% of Assessed Students Meeting Benchmark

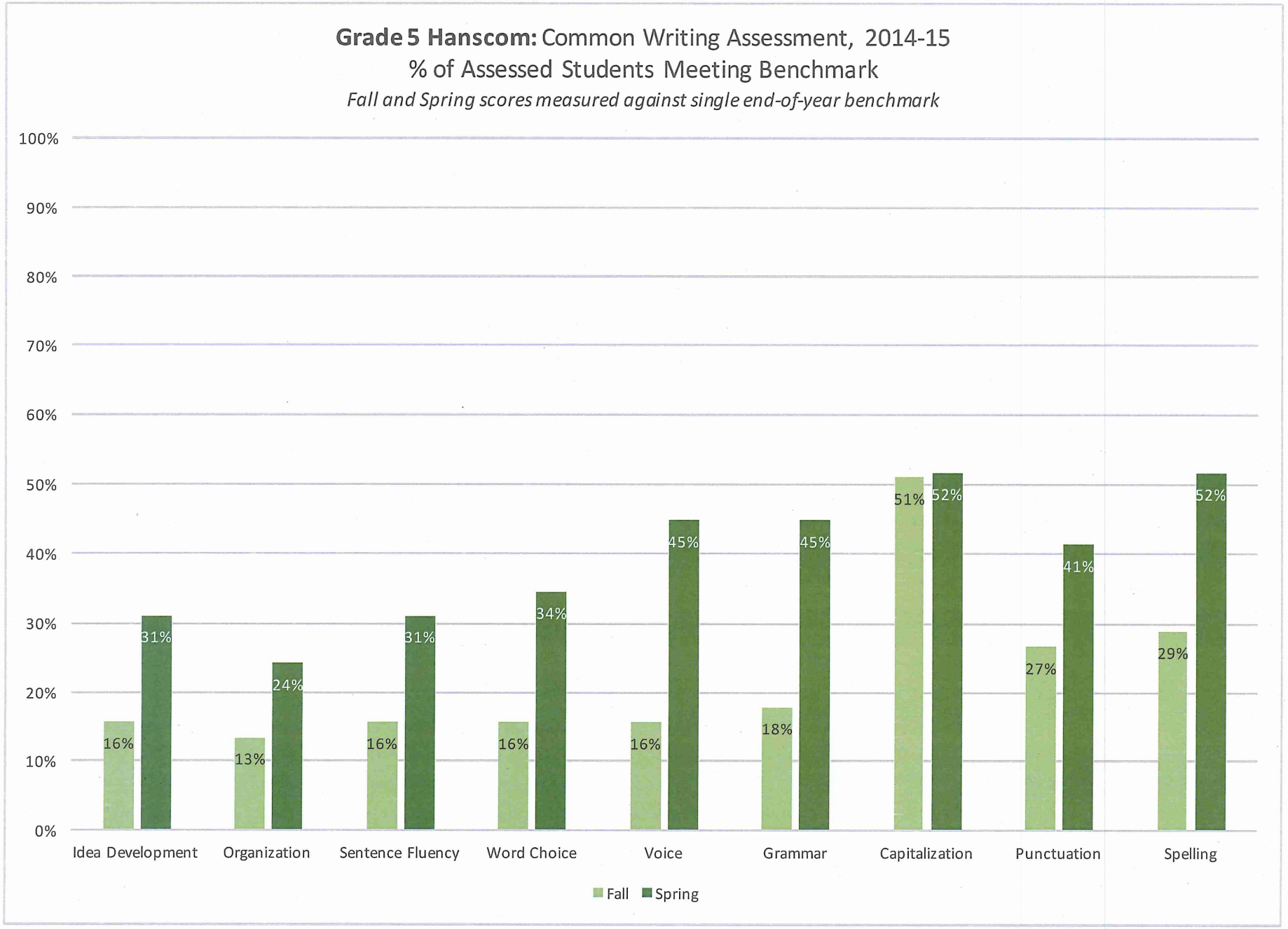
Fall and Spring scores measured against single end-of-year benchmark




Grade 2 Hanscom: Common Writing Assessment, 2014-15
% of Assessed Students Meeting Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
6%
84%
0%
75%
0%
73%
0%
70%
3%
72%
6%
41%
18%
53%
49%
89%
18%
66%
Idea Development
Organization
Sentence Fluency
Word Choice
Voice
Grammar
Capitalization
Punctuation
Spelling
Fall
Spring


Grade 3 Hanscom: Common Writing Assessment, 2014-15
% of Assessed Students Meeting Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
8%
30%
5%
26%
3%
28%
10%
28%
13%
15%
16%
34%
26%
45%
11%
26%
10%
32%
Idea Development
Organization
Sentence Fluency
Word Choice
Voice
Grammar
Capitalization
Punctuation
Spelling
Fall
Spring

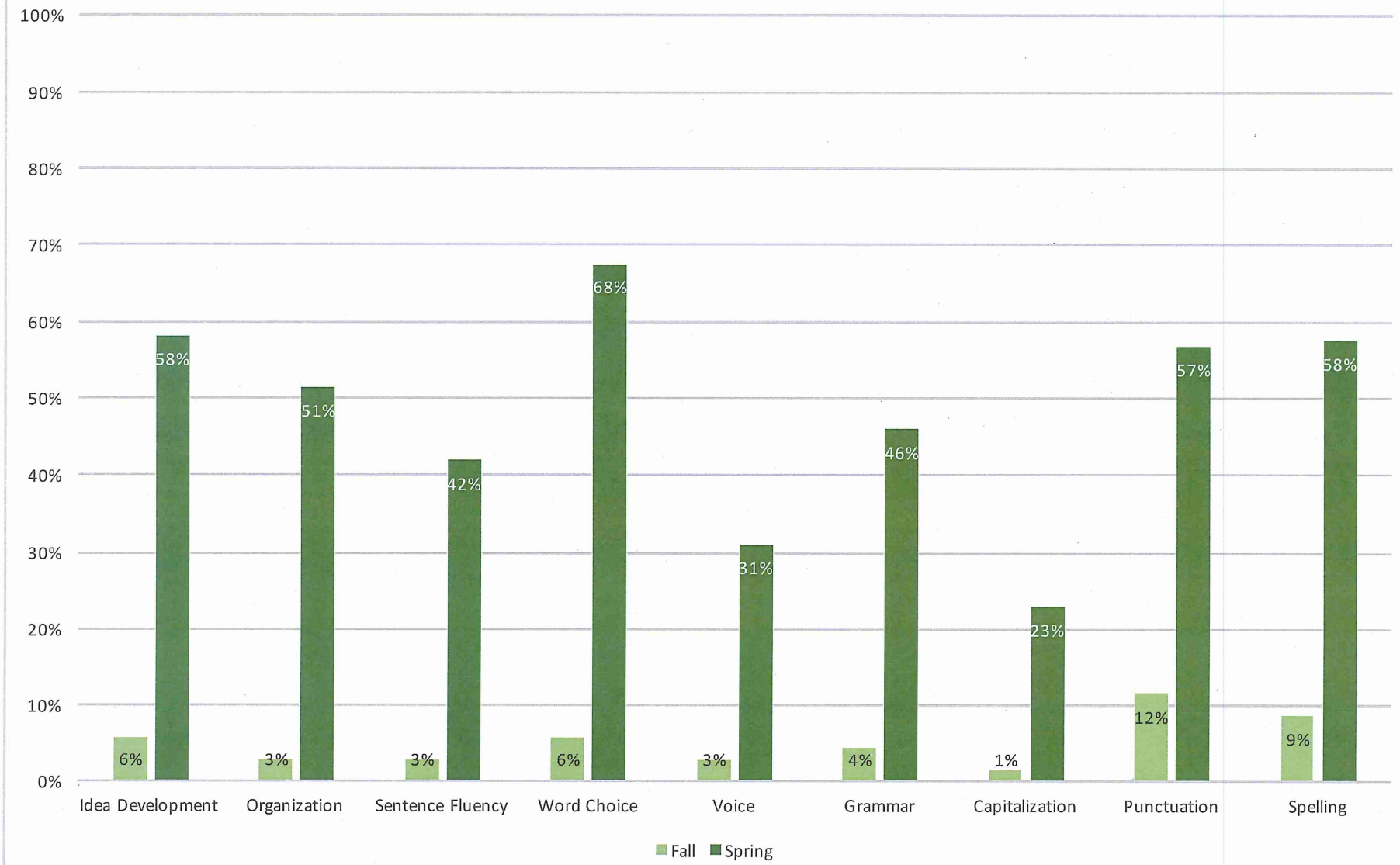

Grade 4 Hanscom: Common Writing Assessment, 2014-15
% of Assessed Students Meeting Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
8%
39%
0%
20%
4%
33%
2%
20%
10%
37%
10%
41%
25%
51%
8%
51%
15%
49%
Idea Development
Organization
Sentence Fluency
Word Choice
Voice
Grammar
Capitalization
Punctuation
Spelling
Fall
Spring


Grade 5 Hanscom: Common Writing Assessment, 2014-15
% of Assessed Students Meeting Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
16%
31%
13%
24%
16%
31%
16%
34%
16%
45%
18%
45%
51%
52%
27%
41%
29%
52%
Idea Development
Organization
Sentence Fluency
Word Choice
Voice
Grammar
Capitalization
Punctuation
Spelling
Fall
Spring

Grade 1 Lincoln: Common Writing Assessment, 2014-15

% of Assessed Students Meeting Benchmark

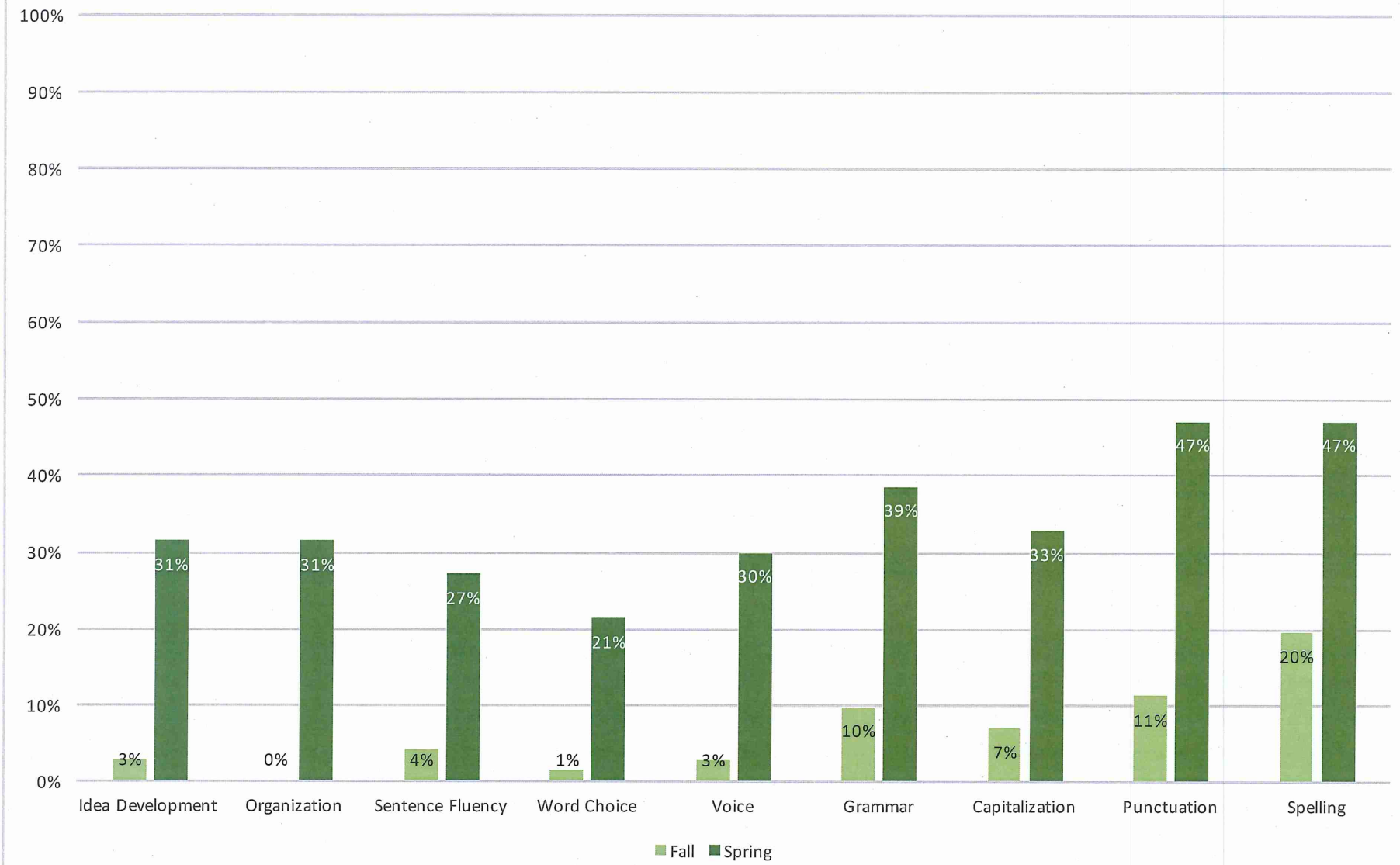
Fall and Spring scores measured against single end-of-year benchmark

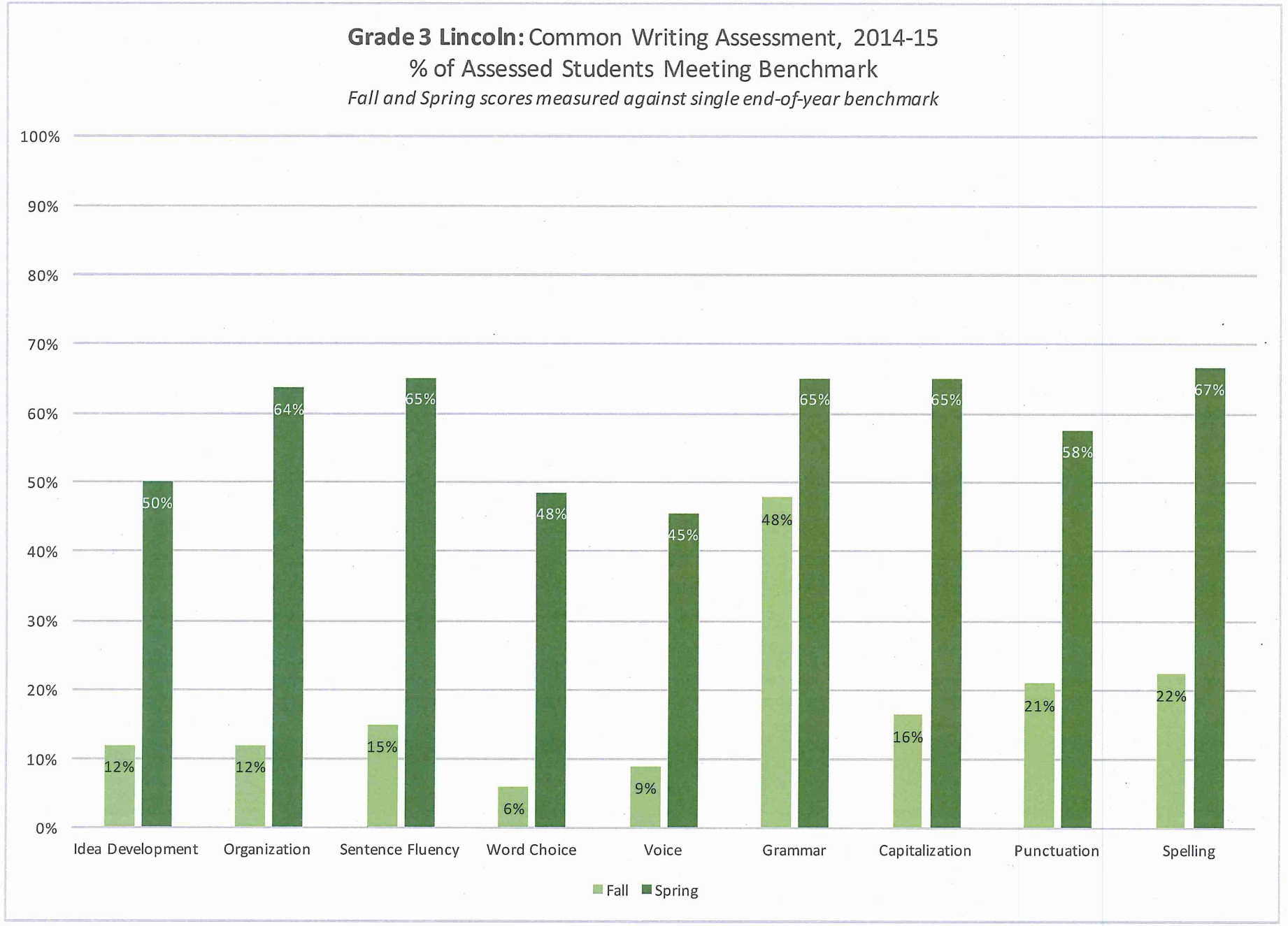


Grade 2 Lincoln: Common Writing Assessment, 2014-15

% of Assessed Students Meeting Benchmark

Fall and Spring scores measured against single end-of-year benchmark

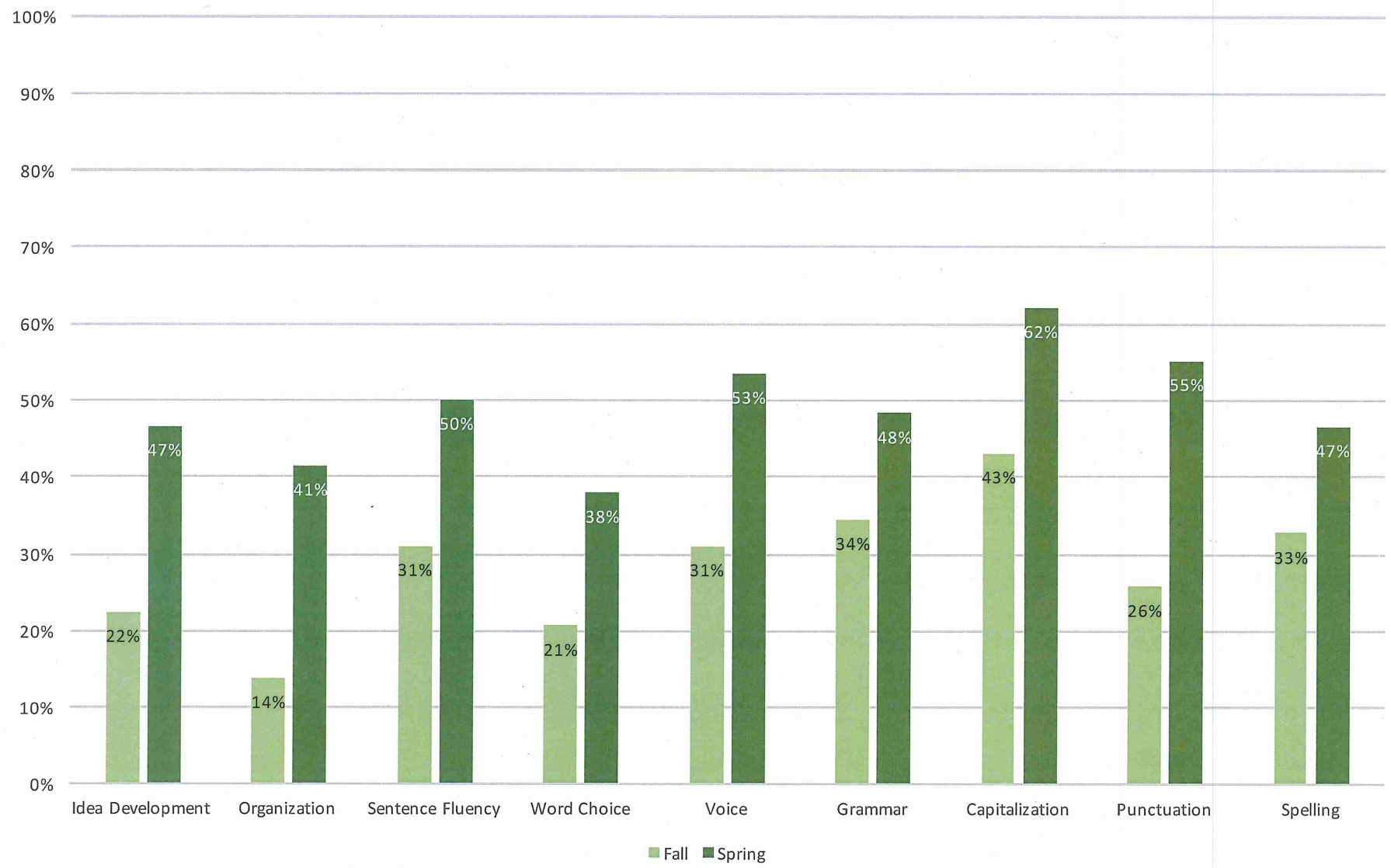



Grade 3 Lincoln: Common Writing Assessment, 2014-15
% of Assessed Students Meeting Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
12%
50%
12%
64%
15%
65%
6%
48%
9%
45%
48%
65%
16%
65%
21%
58%
22%
67%
Idea Development
Organization
Sentence Fluency
Word Choice
Voice
Grammar
Capitalization
Punctuation
Spelling
Fall
Spring

Grade 4 Lincoln: Common Writing Assessment, 2014-15

% of Assessed Students Meeting Benchmark

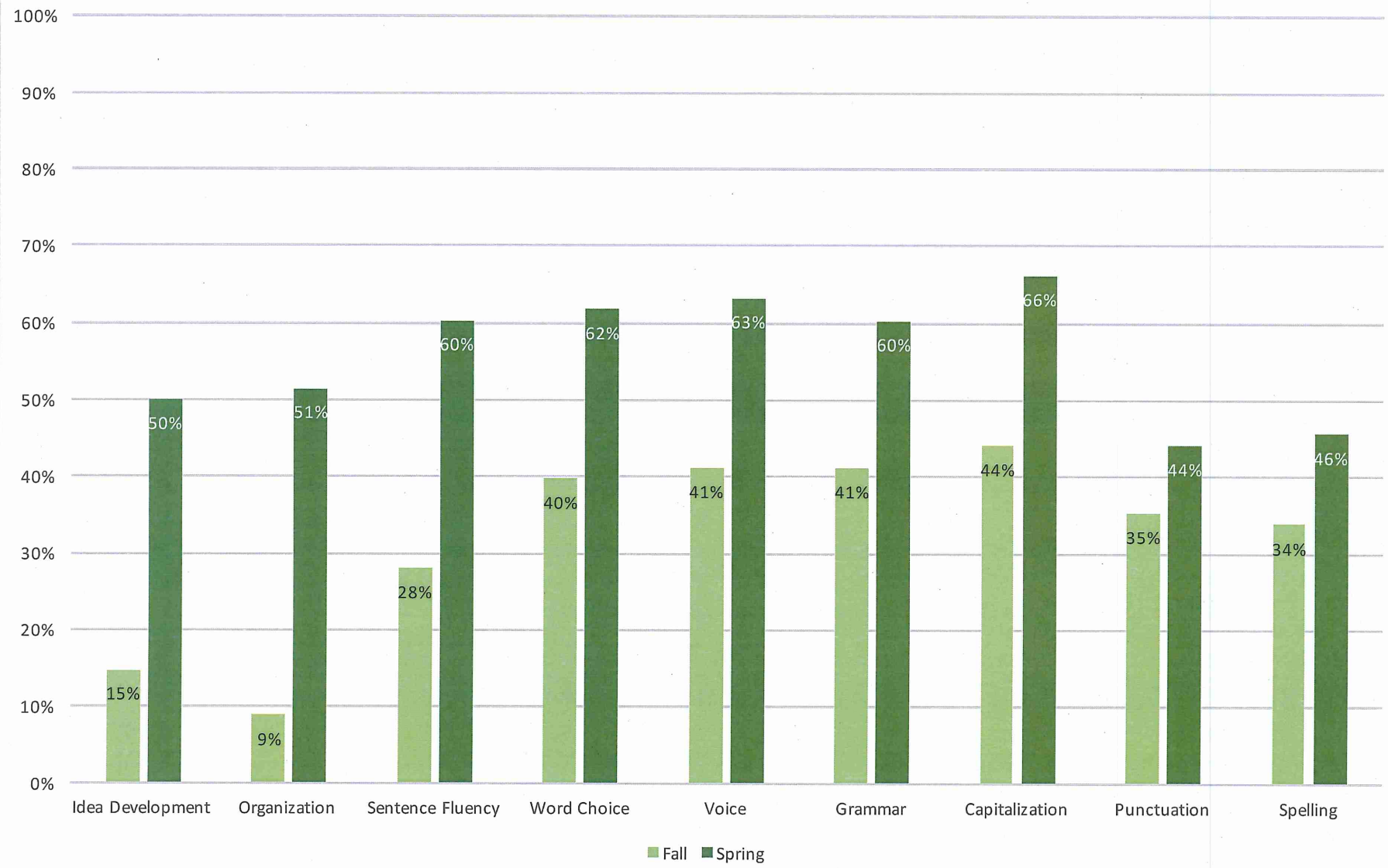
Fall and Spring scores measured against single end-of-year benchmark



Grade 5 Lincoln: Common Writing Assessment, 2014-15

% of Assessed Students Meeting Benchmark

Fall and Spring scores measured against single end-of-year benchmark



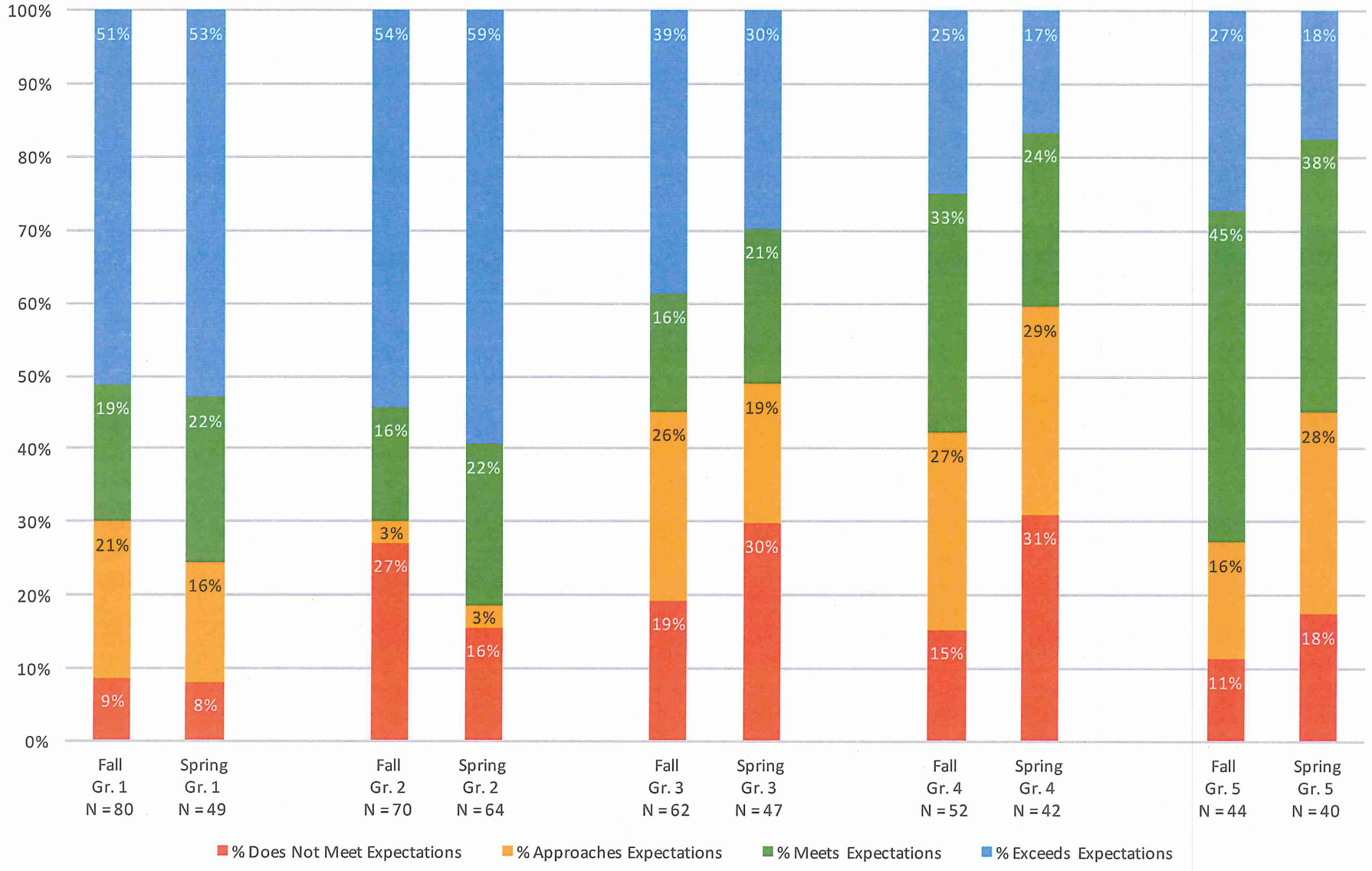
Appendix G

Appendix G

Fountas and Pinnell Reading Assessment 2014-15

Hanscom Primary and Middle Schools, Grades 1-5

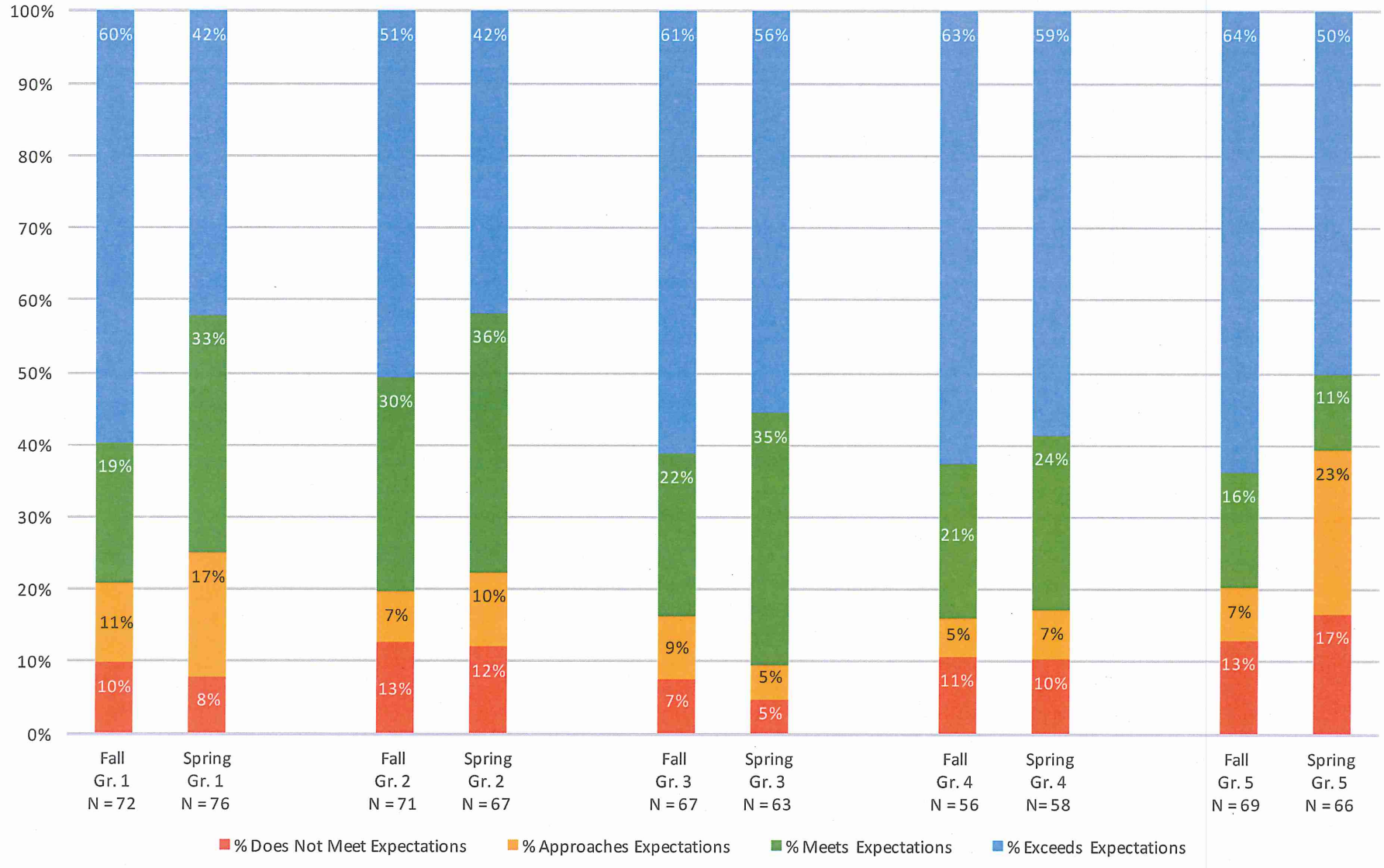
Fall and Spring benchmarks differ.



Fountas and Pinnell Reading Assessment 2014-15

Lincoln School, Grades 1-5

Fall and Spring benchmarks differ.



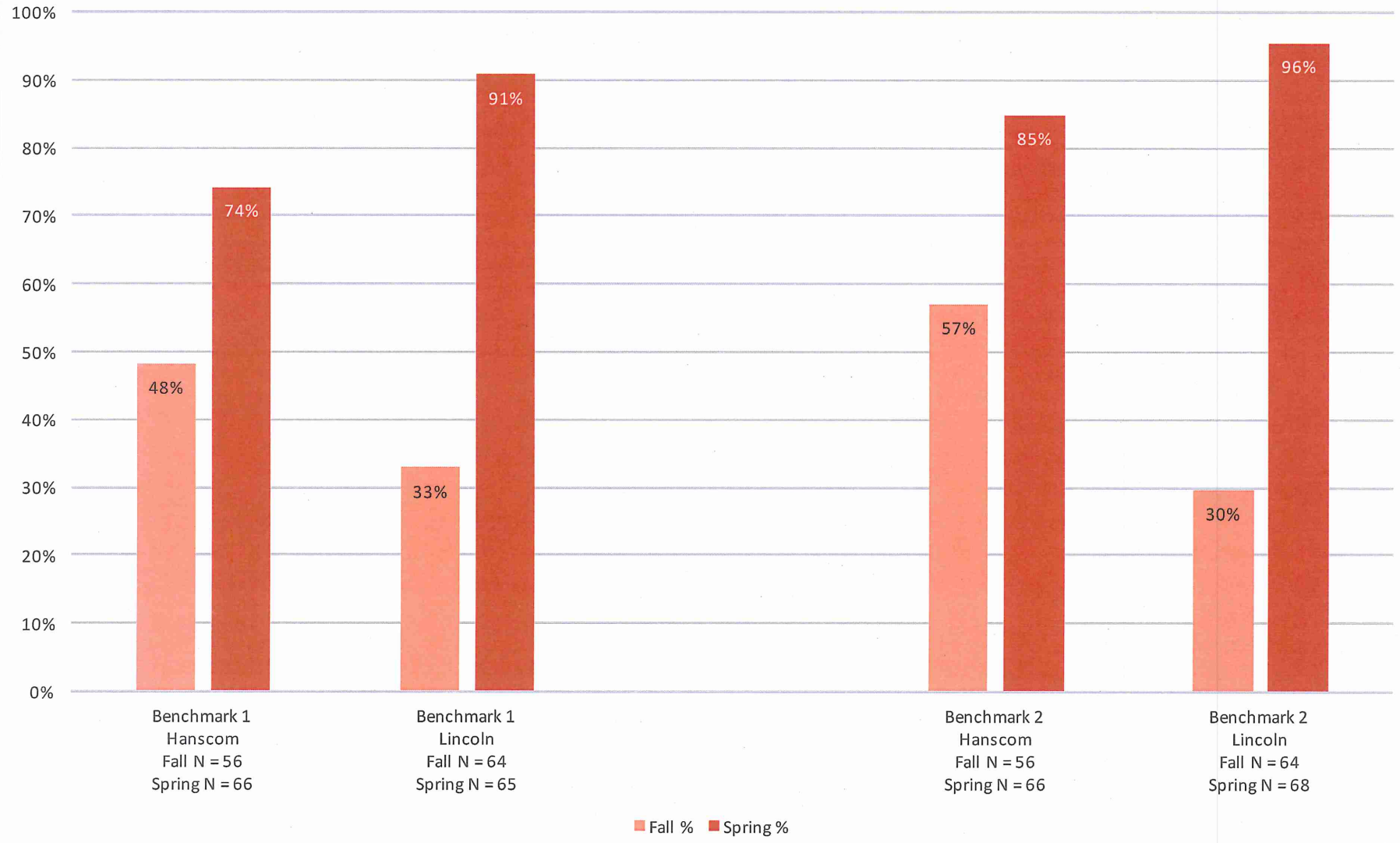
Appendix H

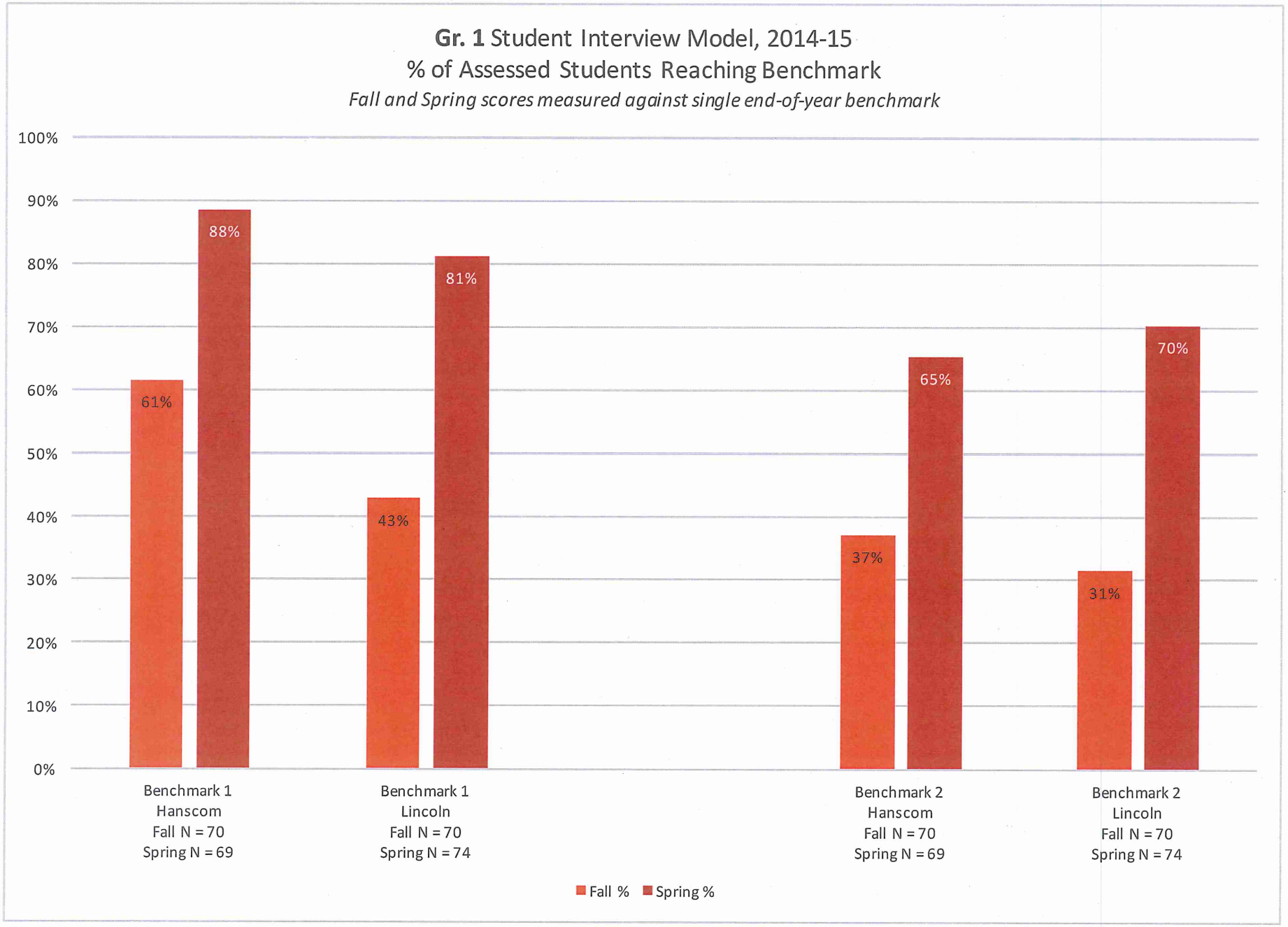
Appendix H

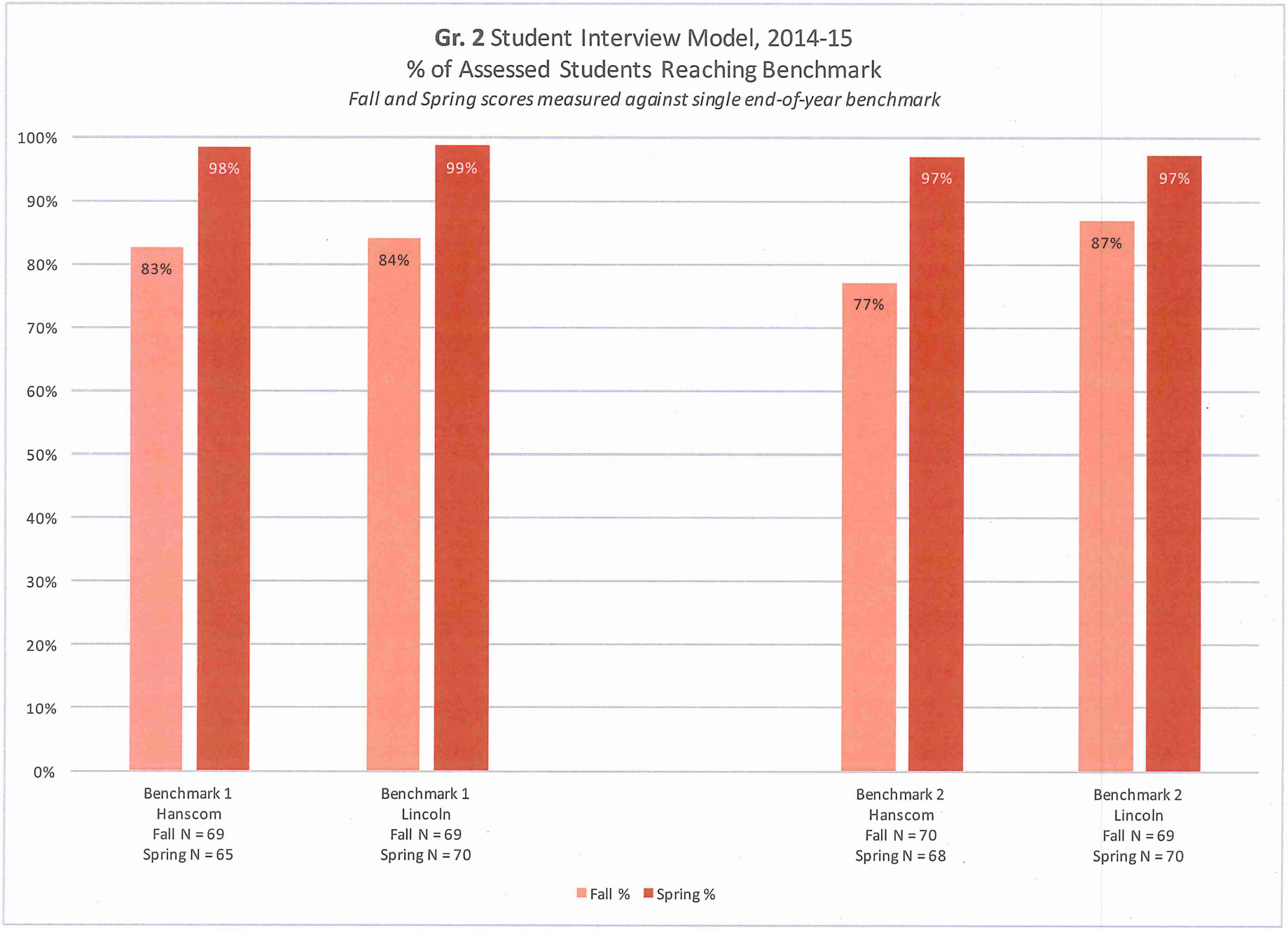
Gr. K Student Interview Model, 2014-15

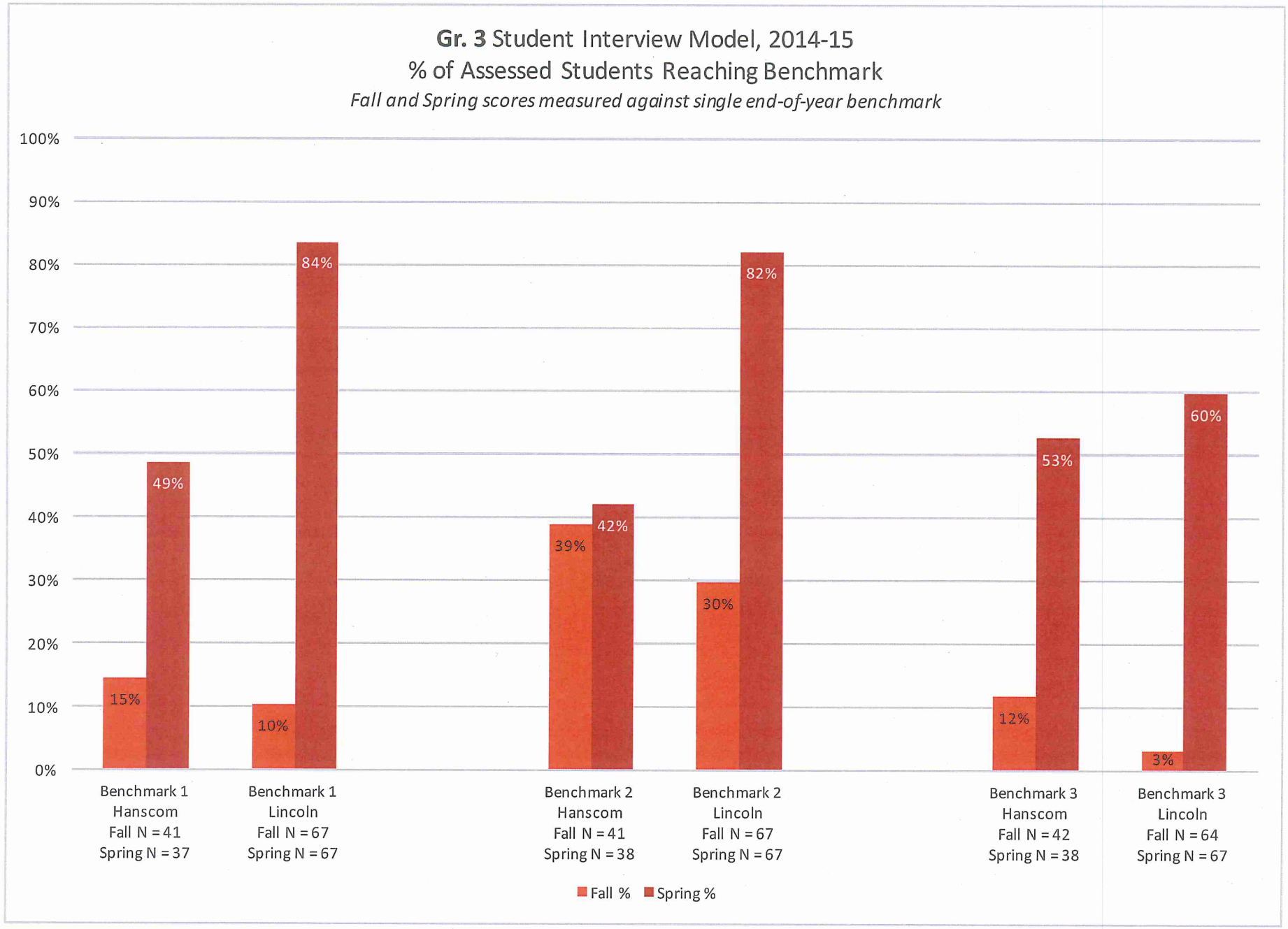
% of Assessed Students Reaching Benchmark

Fall and Spring scores measured against single end-of-year benchmark

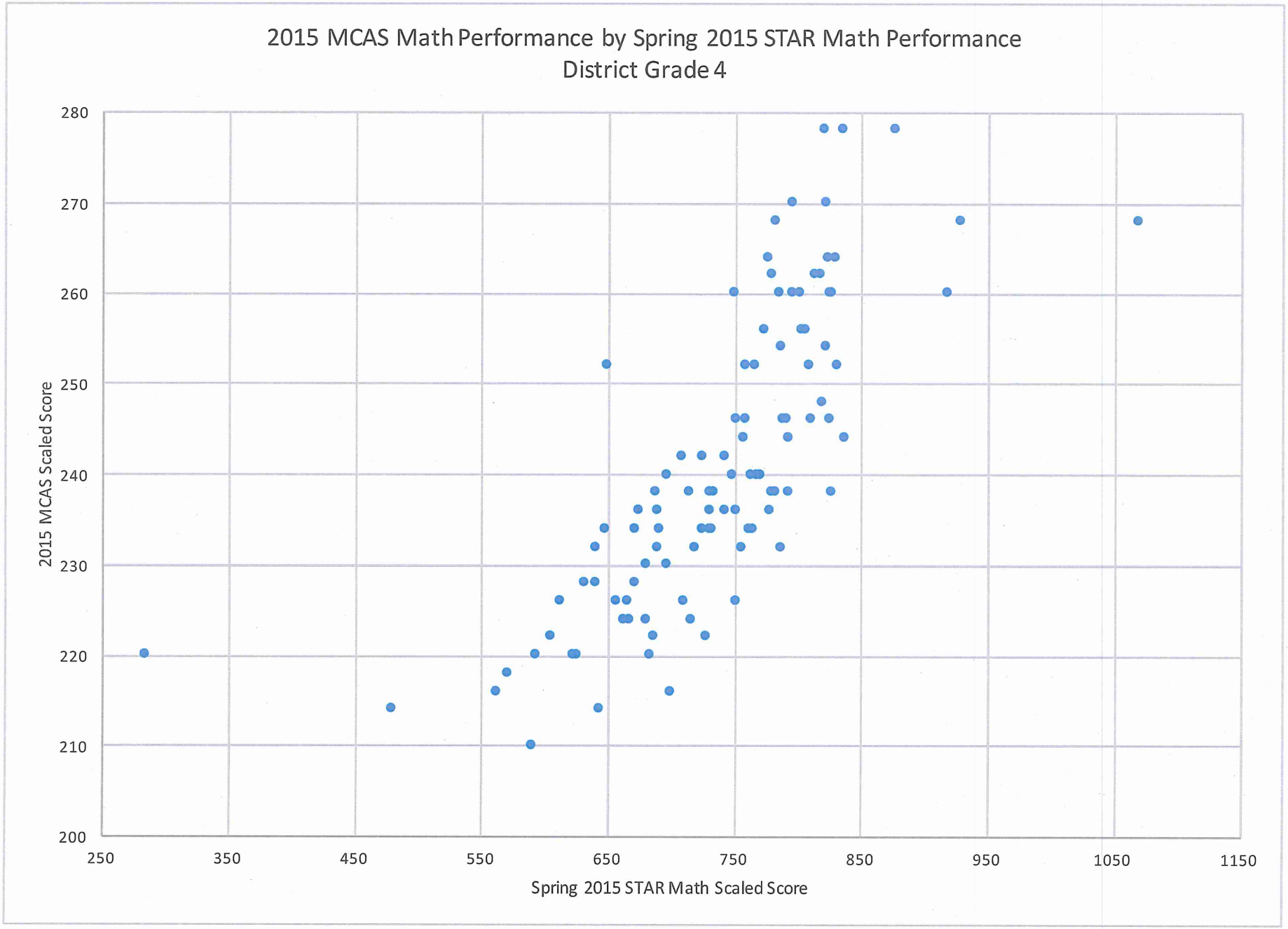


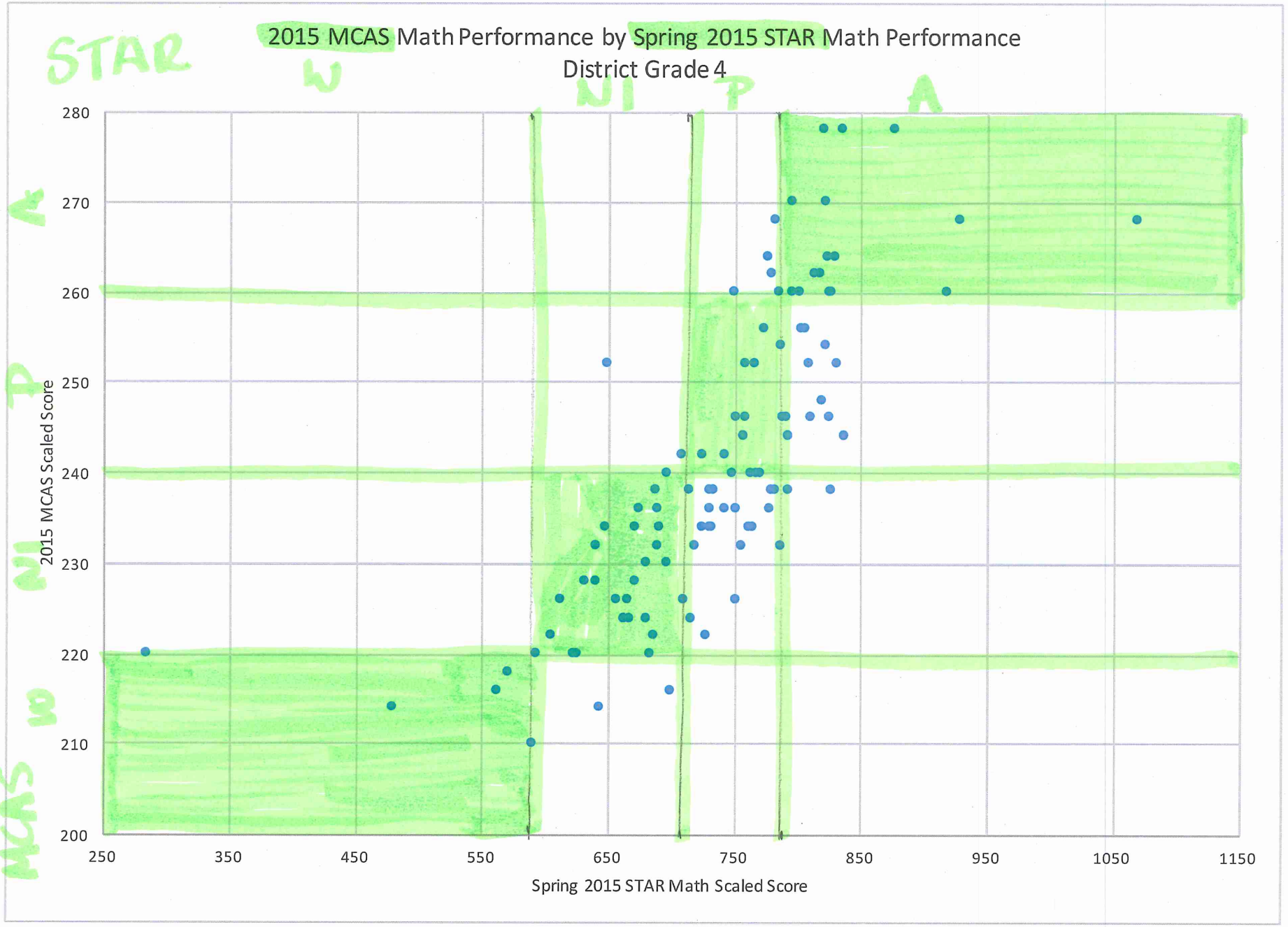

Gr. 1 Student Interview Model, 2014-15
% of Assessed Students Reaching Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
61%
88%
43%
81%
37%
65%
31%
70%
Benchmark 1
Hanscom
Fall N = 70
Spring N = 69
Benchmark 1
Lincoln
Fall N = 70
Spring N = 74
Benchmark 2
Hanscom
Fall N = 70
Spring N = 69
Benchmark 2
Lincoln
Fall N = 70
Spring N = 74
Fall %
Spring %

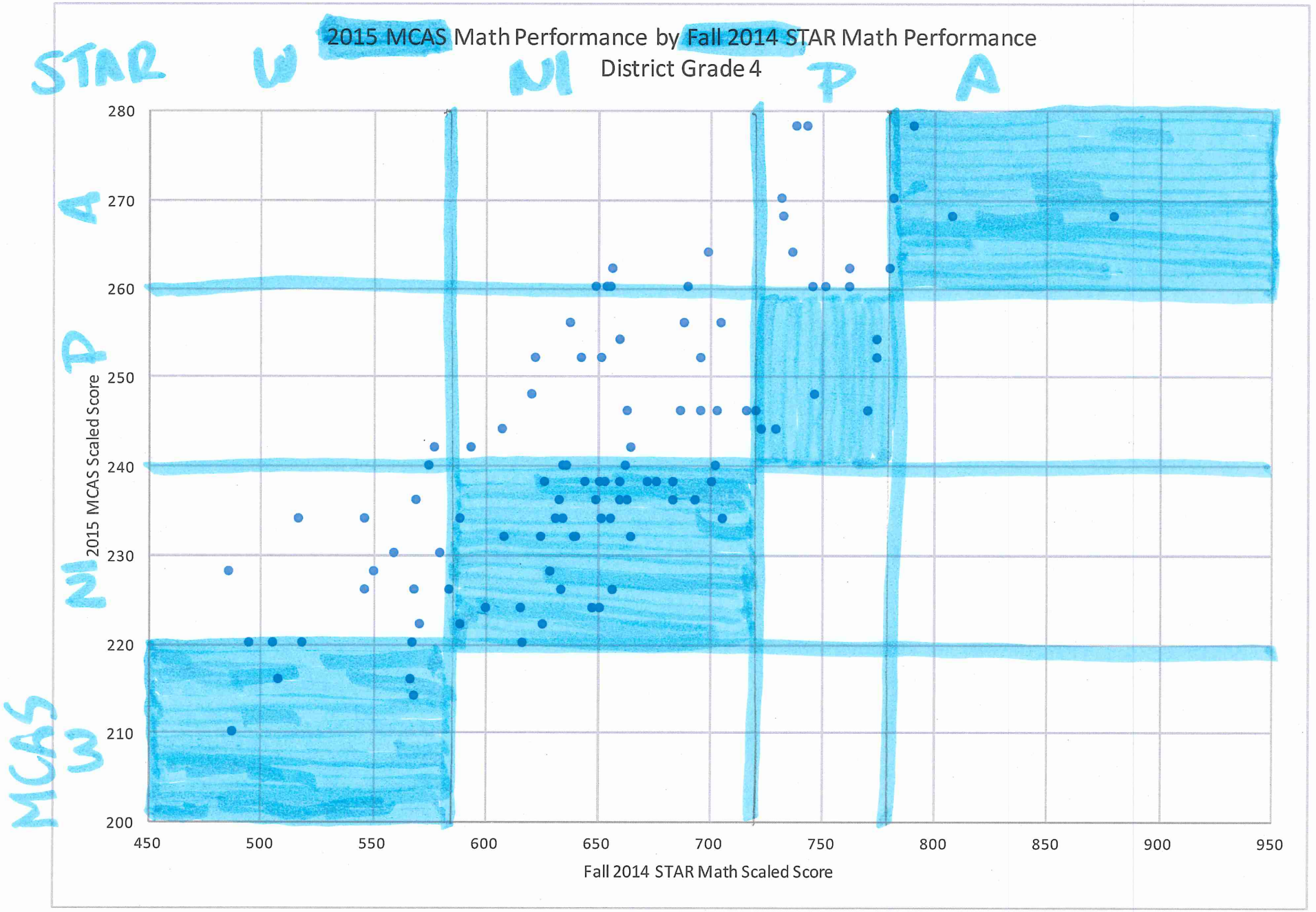

Gr. 2 Student Interview Model, 2014-15
% of Assessed Students Reaching Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
83%
98%
84%
99%
77%
97%
87%
97%
Benchmark 1 Hanscom Fall N = 69 Spring N = 65
Benchmark 1 Lincoln Fall N = 69 Spring N = 70
Benchmark 2 Hanscom Fall N = 70 Spring N = 68
Benchmark 2 Lincoln Fall N = 69 Spring N = 70
Fall %
Spring %


Gr. 3 Student Interview Model, 2014-15
% of Assessed Students Reaching Benchmark
Fall and Spring scores measured against single end-of-year benchmark
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
15%
49%
10%
84%
39%
42%
30%
82%
12%
53%
3%
60%
Benchmark 1 Hanscom Fall N = 41 Spring N = 37
Benchmark 1 Lincoln Fall N = 67 Spring N = 67
Benchmark 2 Hanscom Fall N = 41 Spring N = 38
Benchmark 2 Lincoln Fall N = 67 Spring N = 67
Benchmark 3 Hanscom Fall N = 42 Spring N = 38
Benchmark 3 Lincoln Fall N = 64 Spring N = 67
Fall %
Spring %

Appendix I


2015 MCAS Math Performance by Spring 2015 STAR Math Performance
District Grade 4
2015 MCAS Scaled Score
280
270
260
250
240
230
220
210
200
250
350
450
550
650
750
850
950
1050
1150
Spring 2015 STAR Math Scaled Score


2015 MCAS Math Performance by Spring 2015 STAR Math Performance
District Grade 4
2015 MCAS Scaled Score
280
270
260
250
240
230
220
210
200
250
350
450
550
650
750
850
950
1050
1150
Spring 2015 STAR Math Scaled Score


2015 MCAS Math Performance by Fall 2014 STAR Math Performance
District Grade 4
2015 MCAS Scaled Score
Fall 2014 STAR Math Scaled Score
280
270
260
250
240
230
220
210
200
450
500
550
600
650
700
750
800
850
900
950
STAR
W
NI
P
A
A
P
NI
W
MCAS