

**K – 12 Mathematics Vertical Team Meeting Notes
March 24, 2015**

Members

Jon Albrecht	IGHMS	Michelle Ahrens	IGHMS
Anna Arnebeck	Simley	Penny Baker	Director C&I
Ben Bushaw	Simley	Jane Cromie	Hilltop
Cheryl Dahl	Salem Hills	Katie Debele	Hilltop
Carol Ellison	Simley	Doris Ferguson	Simley
Kara Goodwin	Salem Hills	Amy Hoell	Hilltop
Ted Ihns	Pine Bend	Melissa Jannetto	Salem Hills
Mary Jurrens	Pine Bend	Jillian Konsor	IGHMS
Erin Kylo	Pine Bend	Kristi Larson	Hilltop
Mark Madigan	IGHMS	Rachael Mollo	Pine Bend
Ben Peine	Pine Bend	Paul Rekow	Simley
Jerri Sakala	Simley	Tim Schlatter	Hilltop
Michelle Sherrard	IGHMS	Sonja Steele	Pine Bend
Mindy Tavernier	District Coach	Joyce Ursin	Hilltop
Sue Vallafskey	Hilltop	Jodi Wendel	IGHMS
Kim Westra	Atheneum	Amy Williams	Pine Bend

***Bold** – Members in Attendance

I. Discussion of Elementary Google Hangout

- A. Elementary teachers discussed the first elementary google hangout which focused on classroom strategies for math facts instruction.
- B. Team members discussed if a Grade 5 – 6 google hangout may be a good strategy to begin to build the bridge for student transition to the middle school.

II. Math Facts Revisited

- A. The team watched a Ted Talk related to teaching kids math facts versus helping kids learn real world application of math in a variety of forms, including through the use of computers.

- B. The Ted Talk can be found at:

http://www.ted.com/talks/conrad_wolfram_teaching_kids_real_math_with_computers?language=en

- C. The team also received a copy of an article related to research behind student math fact fluency: <http://www.youcubed.org/fluency-without-fear/>

III. District Benchmark Data

- A. Grade level teams reviewed district benchmark data made available by MDE. See Attachment 1: (District Benchmark Data).
- B. Teams identified needs from reviewing the reports, investigated the actual benchmarks and test specifications, and then created information to send out

- to grade level teams.
- B. Grade level notes are attached. See Attachment 2: (District Benchmark Data Analysis).

IV. Next Steps

- A. The team had potential ideas for next year's work. A group vote was taken to identify what direction the Math Vertical Team will take during the 2015-2016 school year.
- B. Potential ideas:
1. Develop strategies for pre-teaching next grade level standards after MCA testing is complete in May.
 2. Revisit district power standards and review power standards established in other districts.
 3. Concrete/Representational/Abstract – How do we do this? What is the relationship between this and the district-wide issue with math facts.
 4. Create a professional development plan (booklet) of mathematics best practice/tool kit. Preview Pre-AP manuals from other districts.
- C. The team decided on idea #1: Develop strategies for pre-teaching next grade level standards after MCA testing is complete in May.
- D. Plan for next year:

Meeting 1

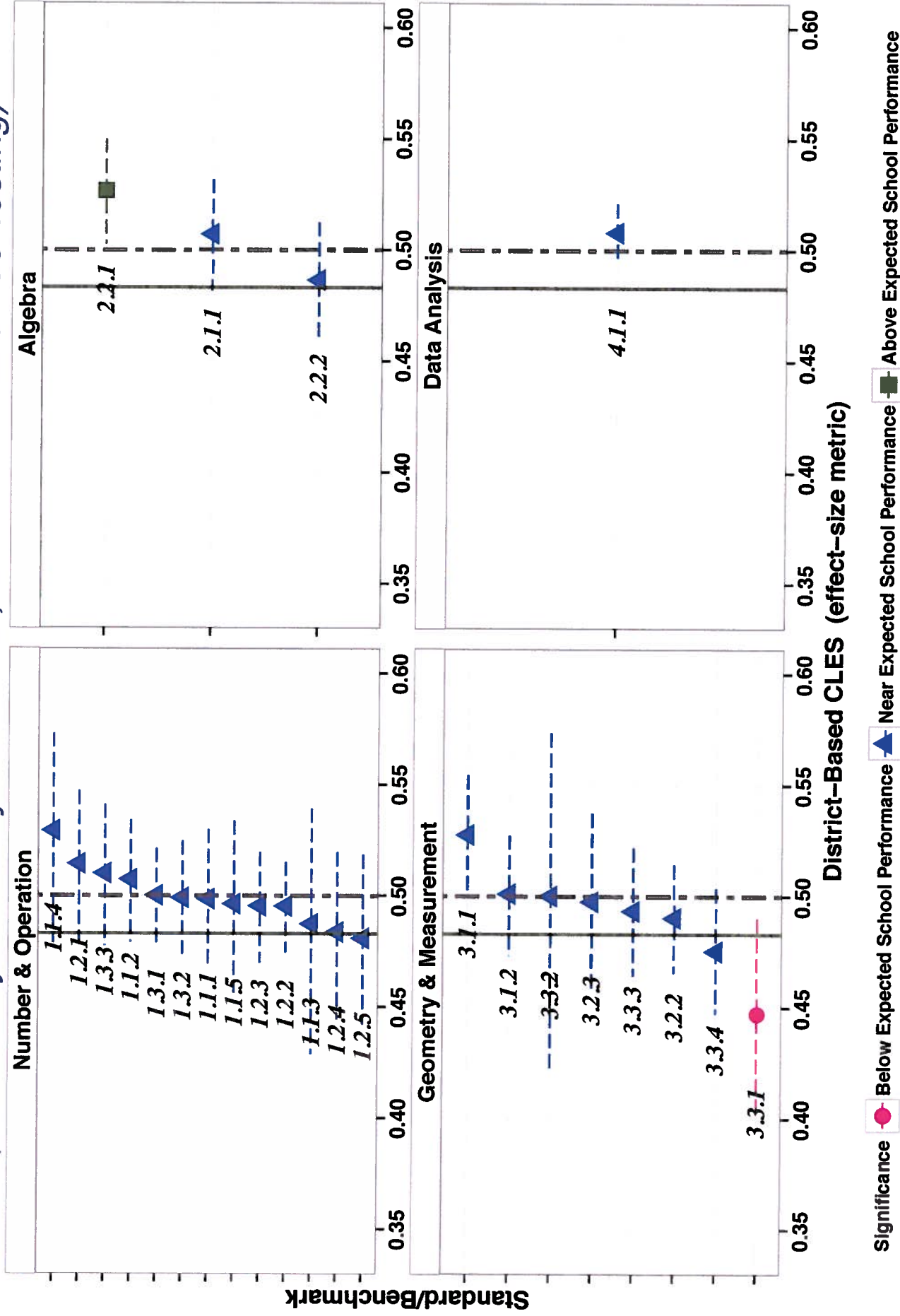
1. Review district-wide math data including looking at disaggregated data.
2. Each grade level will bring two specific benchmarks that the lower grade level could pre-teach in May once MCA testing is over. Kindergarten teachers will do the same to inform our pre-K program. The secondary level will use the mathematic course scope and sequence and identify where the greatest impact will be (for example, are most students in Algebra II in grade 9? If so, inform Grade 8 on two benchmarks to pre-teach in Grade 8.)
3. Establish the parameters for the Vertical Team members' next steps – will the lessons be 4-day lessons, 2-day lessons, etc. There will be a defined plan for lesson creation.

Meetings 2 and 3

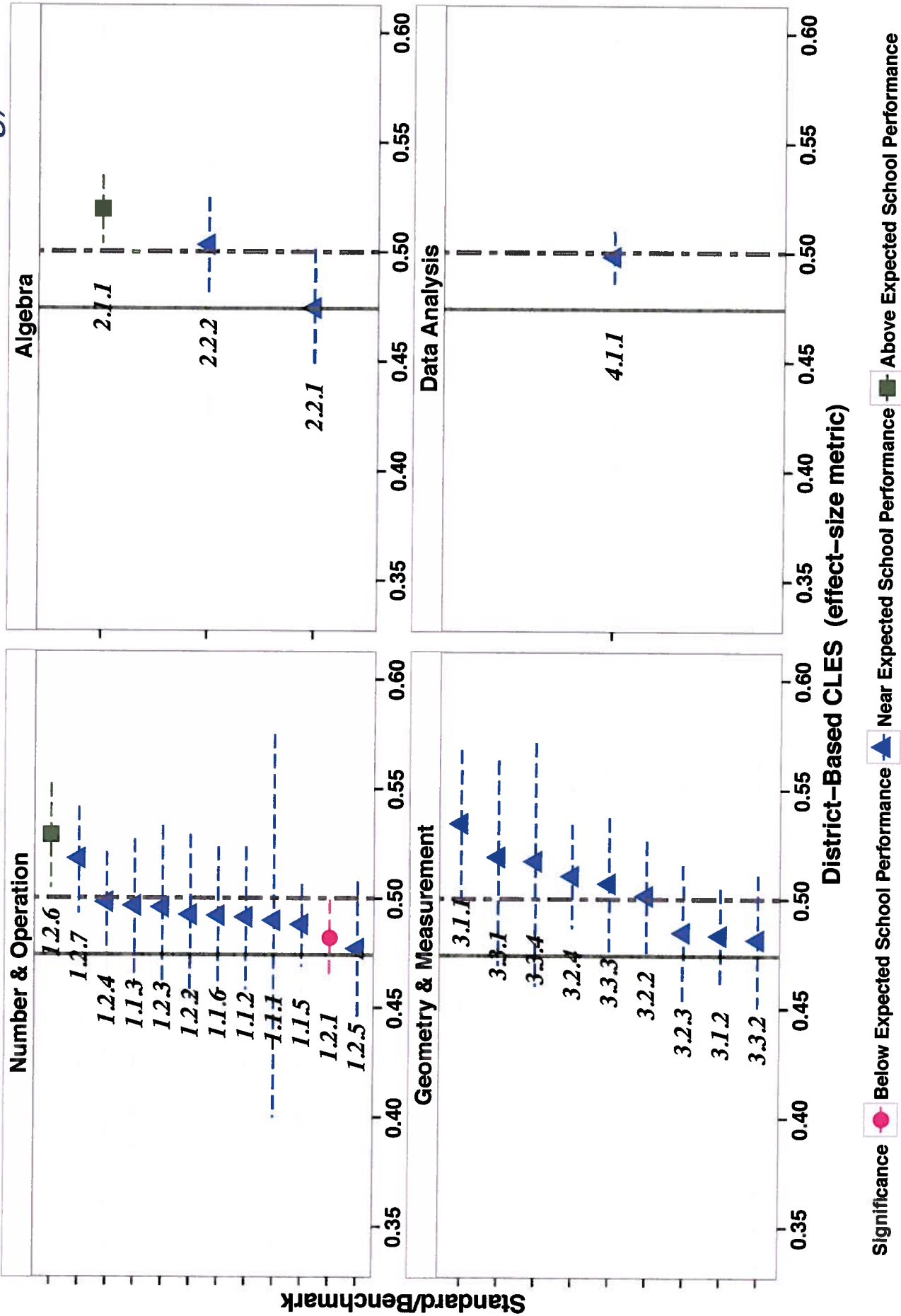
1. Meeting 2 will be flexible work sessions. Teachers from the Vertical Team will be paid up to 6 hours of curriculum writing time to create lessons that will be delivered in May.
2. A 1-hour meeting will be held after school (about February) to discuss the process that will be used to provide all teachers with the lessons to be implemented in May 2016.
3. During the 1-hour meeting, plans for the 2016-2017 school year will also be discussed.

Attachment 1:

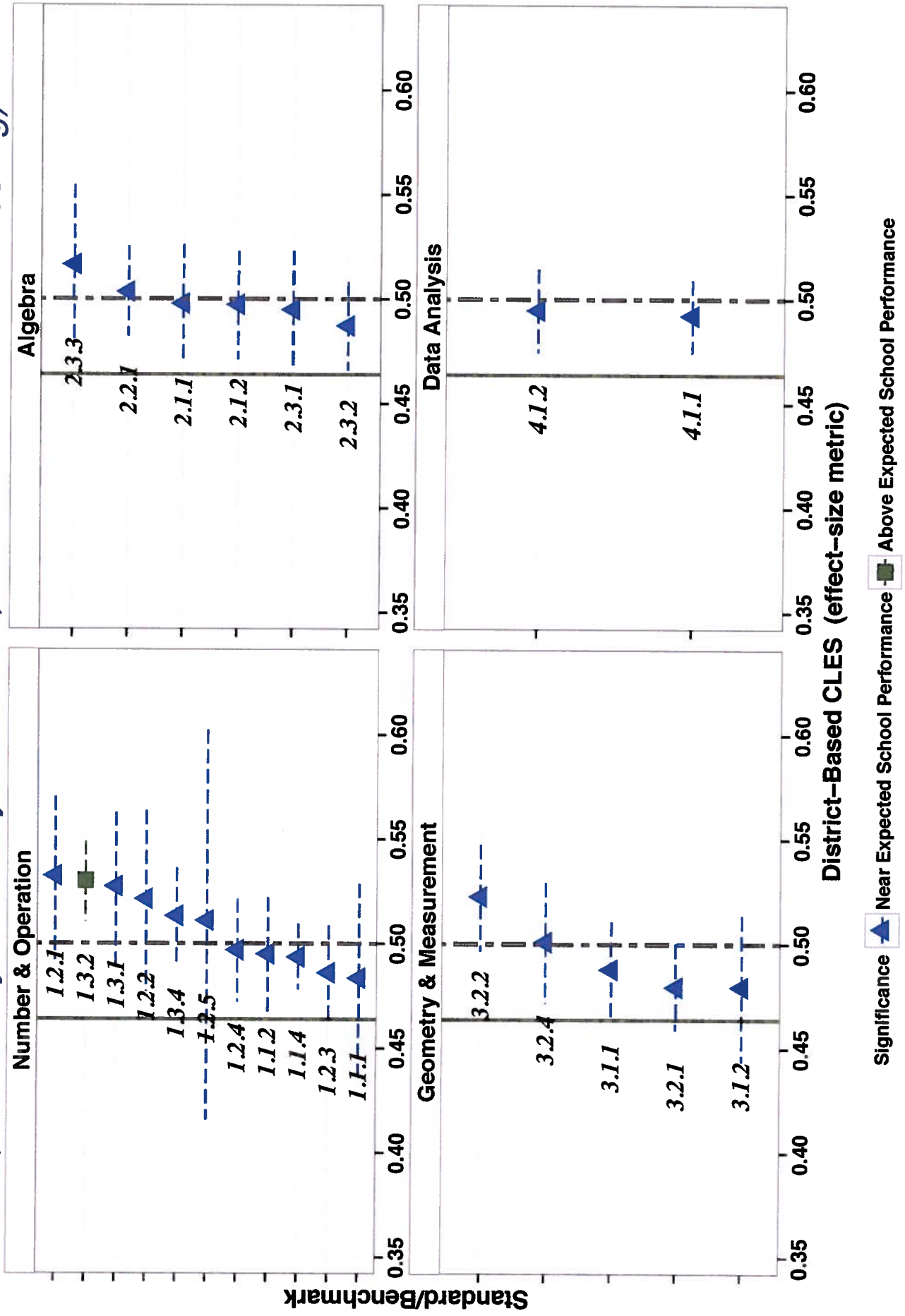
MDE Benchmark Report based on Effect-Size
 INVER GROVE HEIGHTS SCHOOLS: G3 2014 MCA-III Math
 (Created by MDE Psychometrics, Division of Statewide Testing)



MDE Benchmark Report based on Effect-Size
 INVER GROVE HEIGHTS SCHOOLS: G4 2014 MCA-III Math
 (Created by MDE Psychometrics, Division of Statewide Testing)



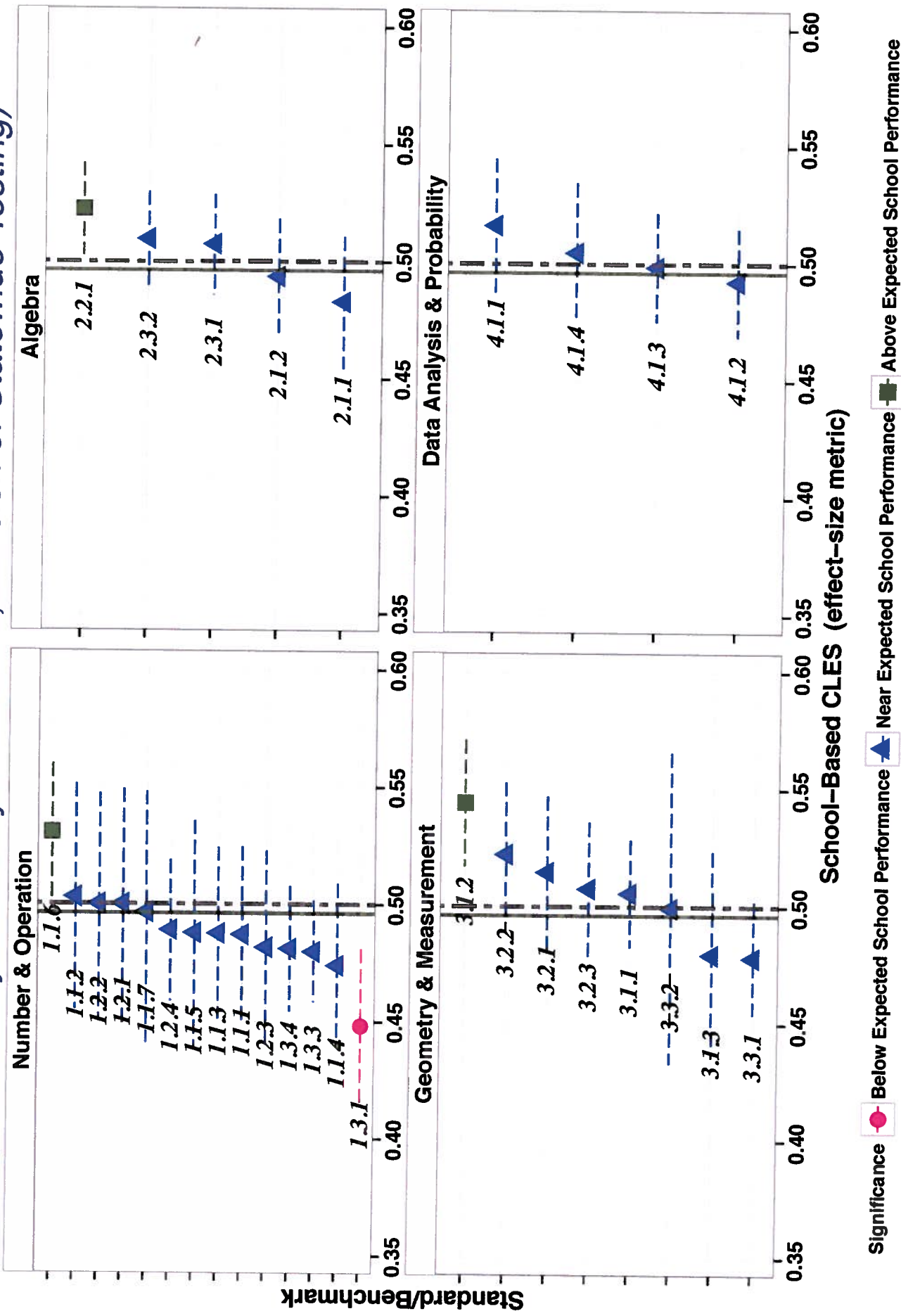
MDE Benchmark Report based on Effect-Size
INVER GROVE HEIGHTS SCHOOLS: G5 2014 MCA-III Math
 (Created by MDE Psychometrics, Division of Statewide Testing)



MDE Benchmark Report based on Effect-Size

INVER GROVE HEIGHTS MIDDLE: G6 2014 MCA-III Math

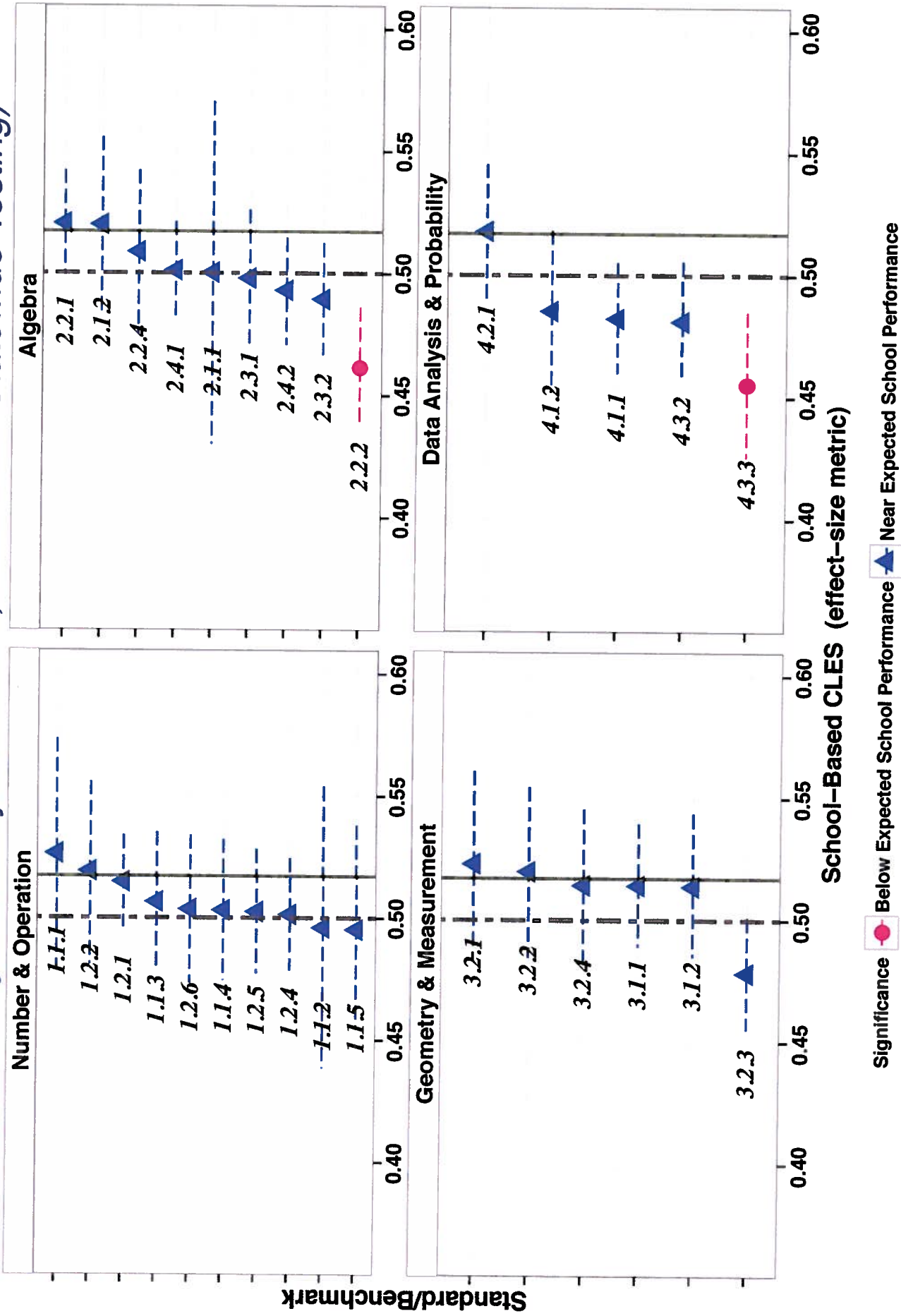
(Created by MDE Psychometrics, Division of Statewide Testing)



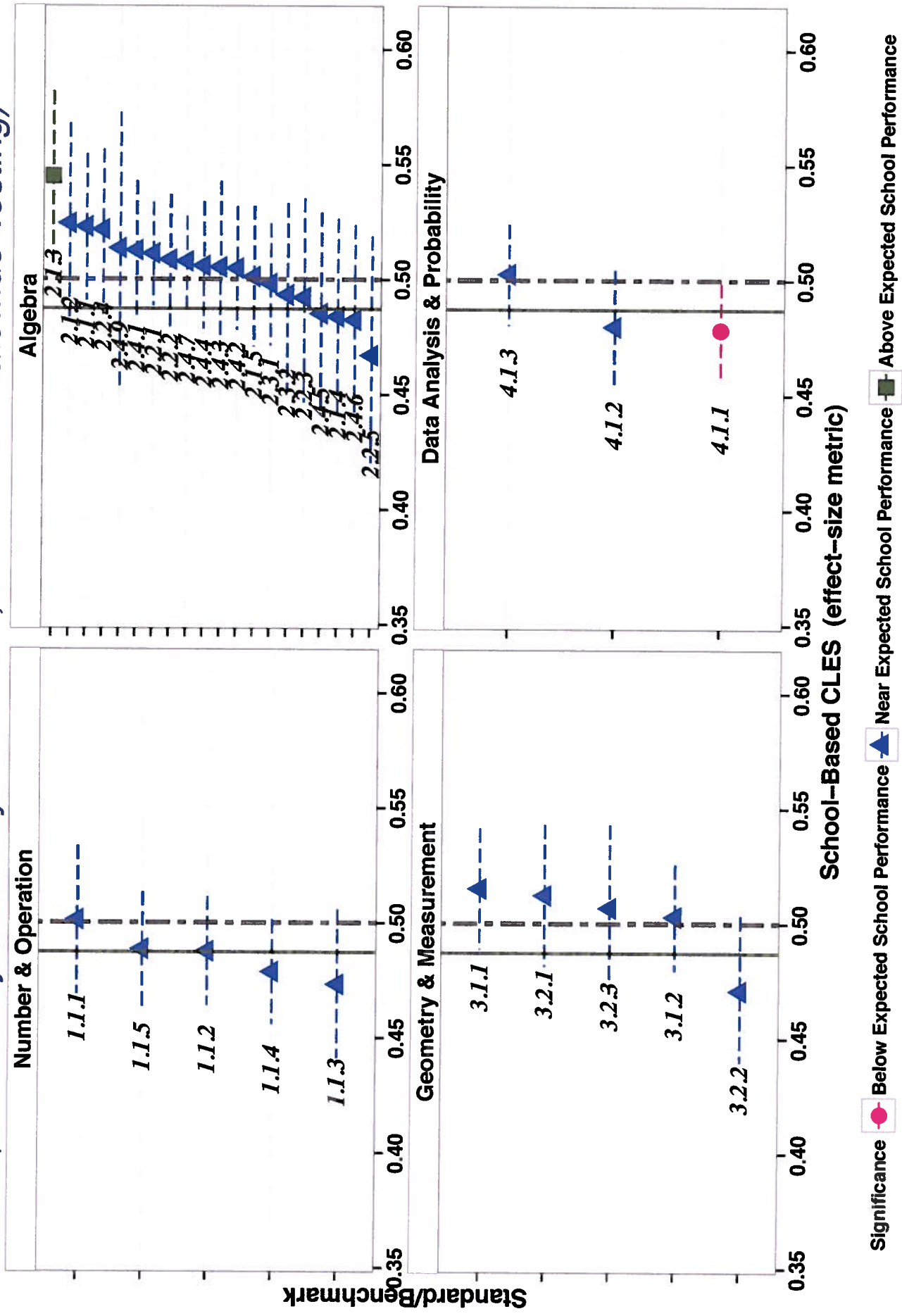
MDE Benchmark Report based on Effect-Size

INVER GROVE HEIGHTS MIDDLE: G7 2014 MCA-III Math

(Created by MDE Psychometrics, Division of Statewide Testing)



MDE Benchmark Report based on Effect-Size
 INVER GROVE HEIGHTS MIDDLE: G8 2014 MCA-III Math
 (Created by MDE Psychometrics, Division of Statewide Testing)



Attachment 2: District Benchmark Data Analysis

Grade 3

1. Elapsed time 3.3.3.1
 - *Thermometer (F. & C.) 3.3.3.4
 - Place value 3.1.1.3
 - Word Problems 3.1.2.5
 - *K could teach/introduce a thermometer during calendar
3. Elapsed time- 3rd grade teach # line jumps
 - Thermometer – 3rd – Hands-on in science
 - Reinforce the different scales.
 - Place value – 3rd – 1000 & 10000 using #s greater than those place values
 - Ex. 90000 – 1000 =
 - Word problems – 2 steps and strategies

Grade 4

- Needs from data:
 - Computation 4.1.2.4, (Equal Fractions - 4.1.2.1), review 4.1.1.1
 - Algebra 4.2.2.1
 - Geometry and Measurement 4.3.3.2, 4.3.1.2, 4.3.2.3
 - Celebrate (Number and operations – 4.1.2.4 (decimals))
 - Algebra 4.2.1.1 (rounding decimals)

Grade 5

Number & Operations:

- 5.1.2.4 Equivalent fractions
- 5.1.1.2 Quotient & Remainders (selecting appropriate ones)
- 5.1.1.4 Real World Problem Solving
- 5.1.2.3 Ordering Fractions, mixed numbers, decimals and locate on a number line
- 5.1.1.1 Division

Geometry & Measurement

- 5.3.1.1 Naming solids
- 5.3.2.1 Area of triangles and parallelograms
- 5.3.1.2 Nets & Solids

Algebra:

- 5.2.3.1 Equalities & Inequalities
- 5.2.3.2 Evaluate Expressions

The standard that appears first is the standard that is in most need of improvement for each section.

Grade 6

- Need help:
 - Multiply and Divide with fractions and decimals
 - School – Calculate % for assessments ratios

Grade 7

- Need help:
 - Multi-step problems involving proportional relationships (tax, tips, discounts, etc.)
- Probability
 - Relative frequencies – Predict outcomes

Grade 8

- Need help:
 - Collecting, displaying, and interpreting data using scatter plots

Next steps:

1. Place activities on eclipse
2. Working time on Google hangout to talk about and update together