MMSD Value-Added Results

January 3, 2011

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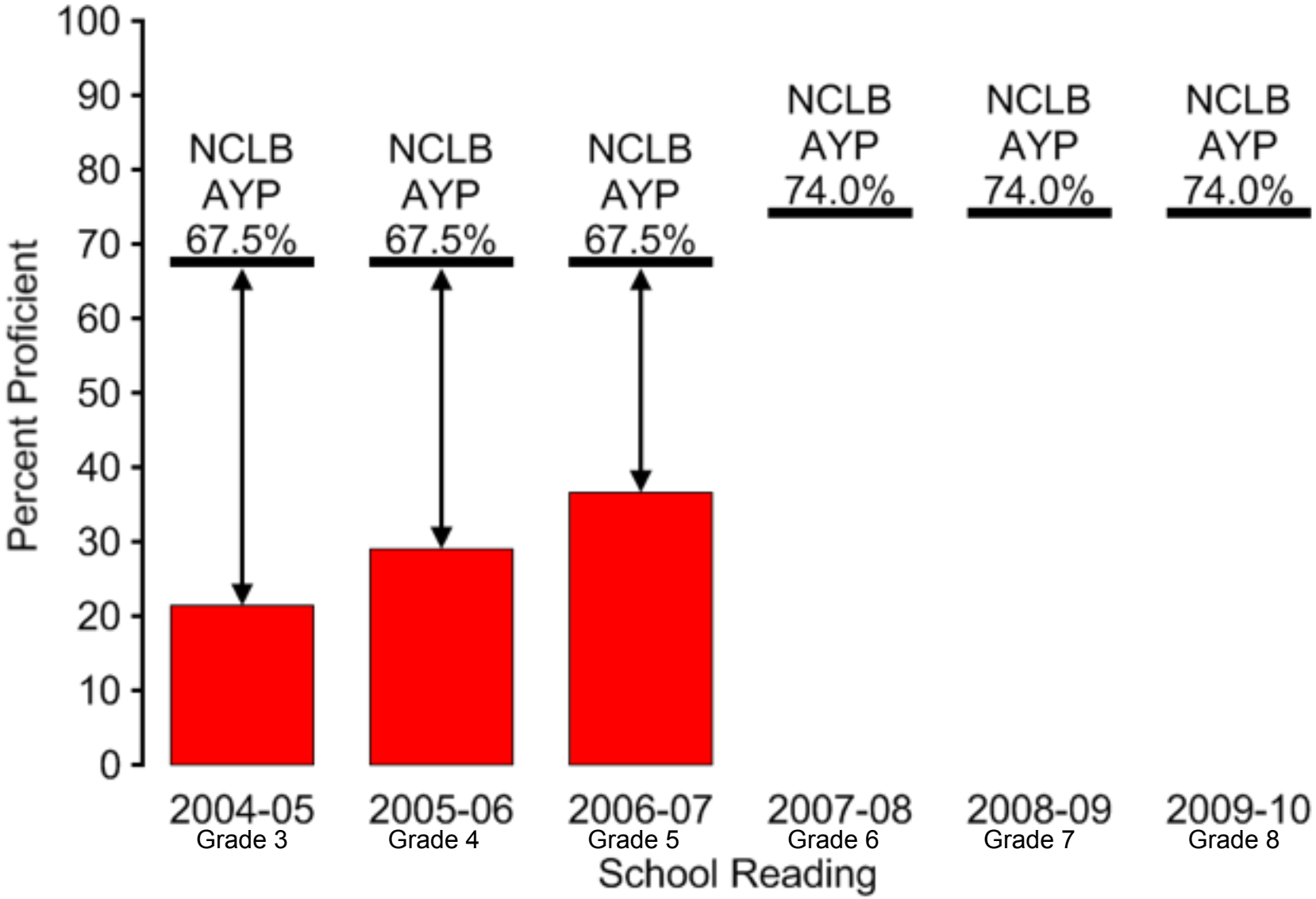
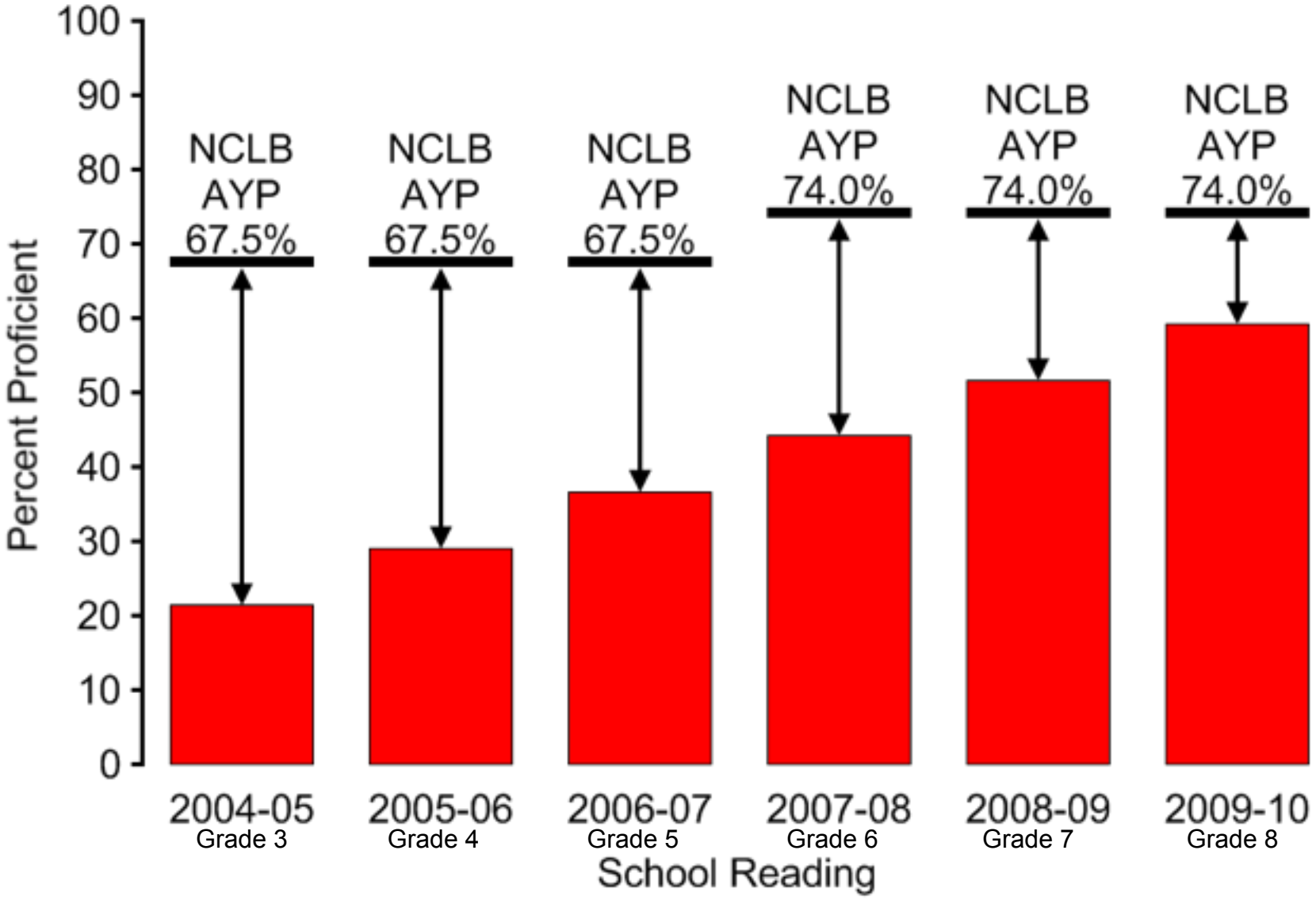
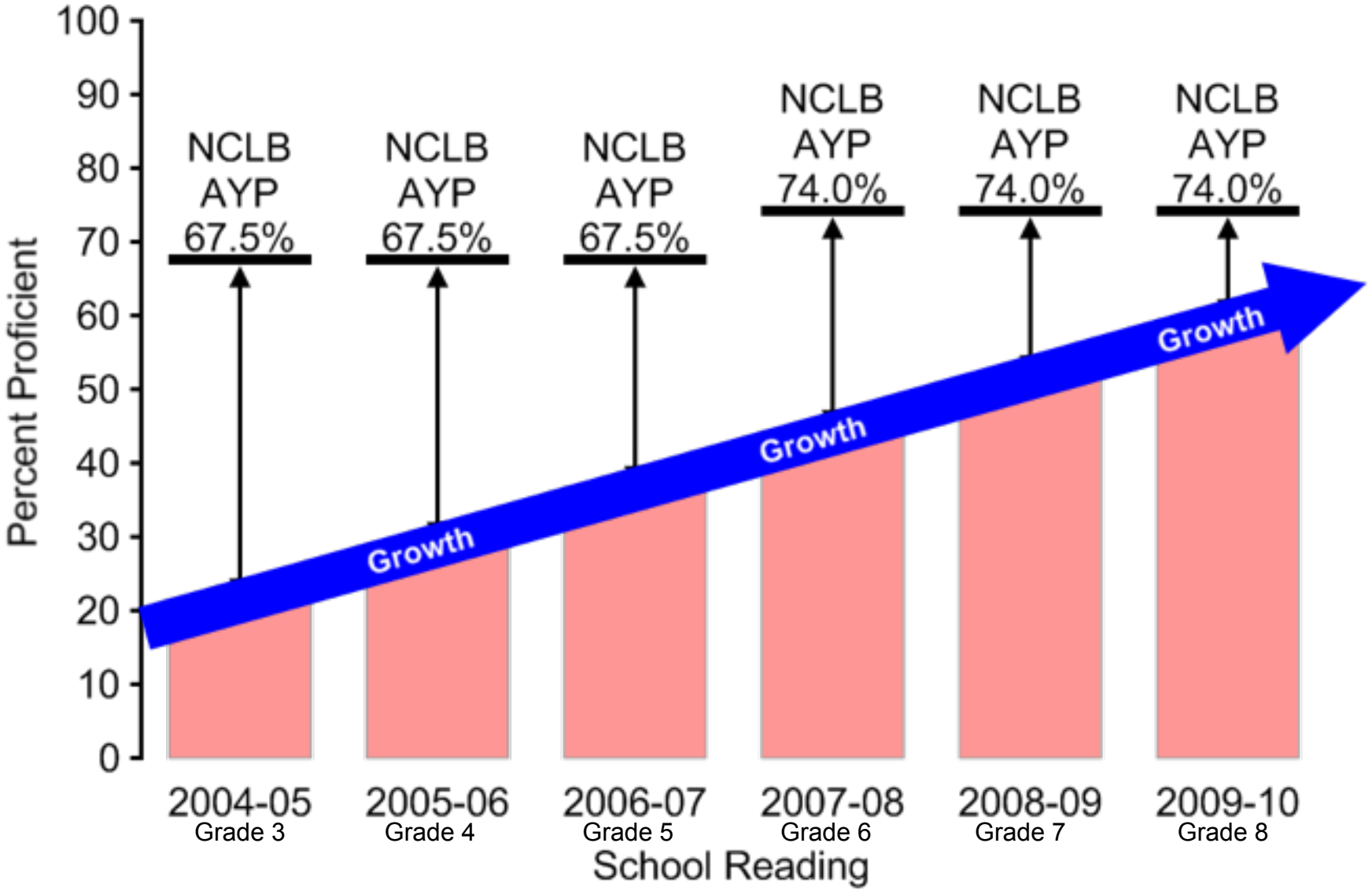
Attainment versus Growth



Attainment versus Growth



Attainment versus Growth



Review of Value Added

- A kind of growth model that uses statistical techniques to separate the impact of schooling from other factors that may influence growth

- Focuses on how much students improve on the WKCE from one year to the next as measured in scale score points

Value-Added Measures

- Extra WKCE points gained by students at a school on average relative to observably similar students across district
- Value added of +3 means students gained 3 points more than the district average
- Value added of -3 means students gained 3 points less than the district average

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Alternative understanding

- Average student gain on WKCE relative to district average, with adjustments for:
  - Shape of the test score scale
  - Gender, race, disability, low-income status, language, parents' education, FAY

Coverage of value added

- School level
  - Covers students with two consecutive years of test scores at a school
- Grade level
  - Covers students with two consecutive years of test scores over a specific grade progression
  - Grade progressions: 3-4, 4-5, 5-6, 6-7, 7-8
  - Since testing is in November, value added is for earlier grade in the progression

Differential value added

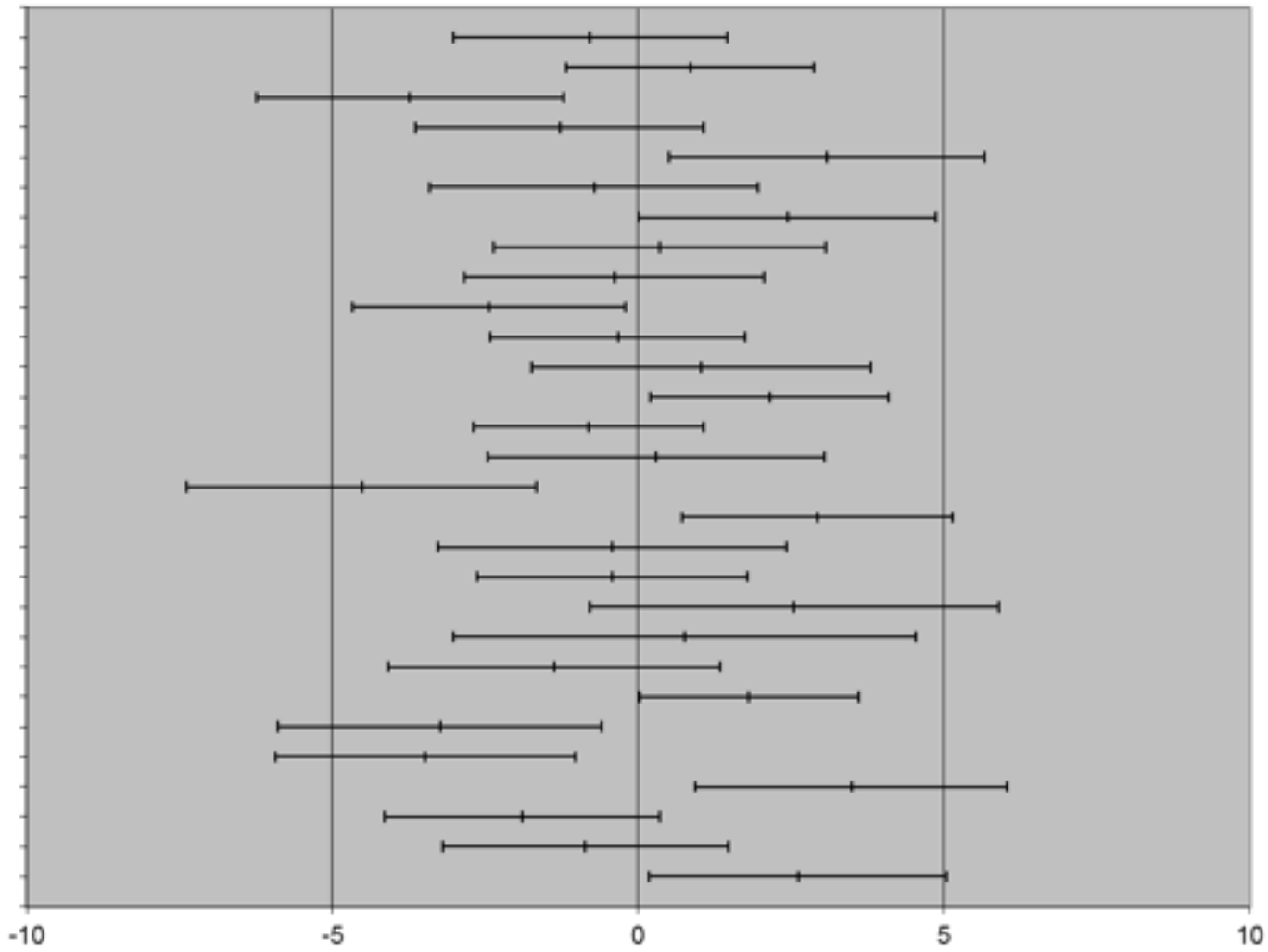
- Value added at the school and grade level for subgroups of students
  - Students with disabilities
  - English language learner
  - Black
  - Hispanic
  - Low-income
- New this year

Some technical issues

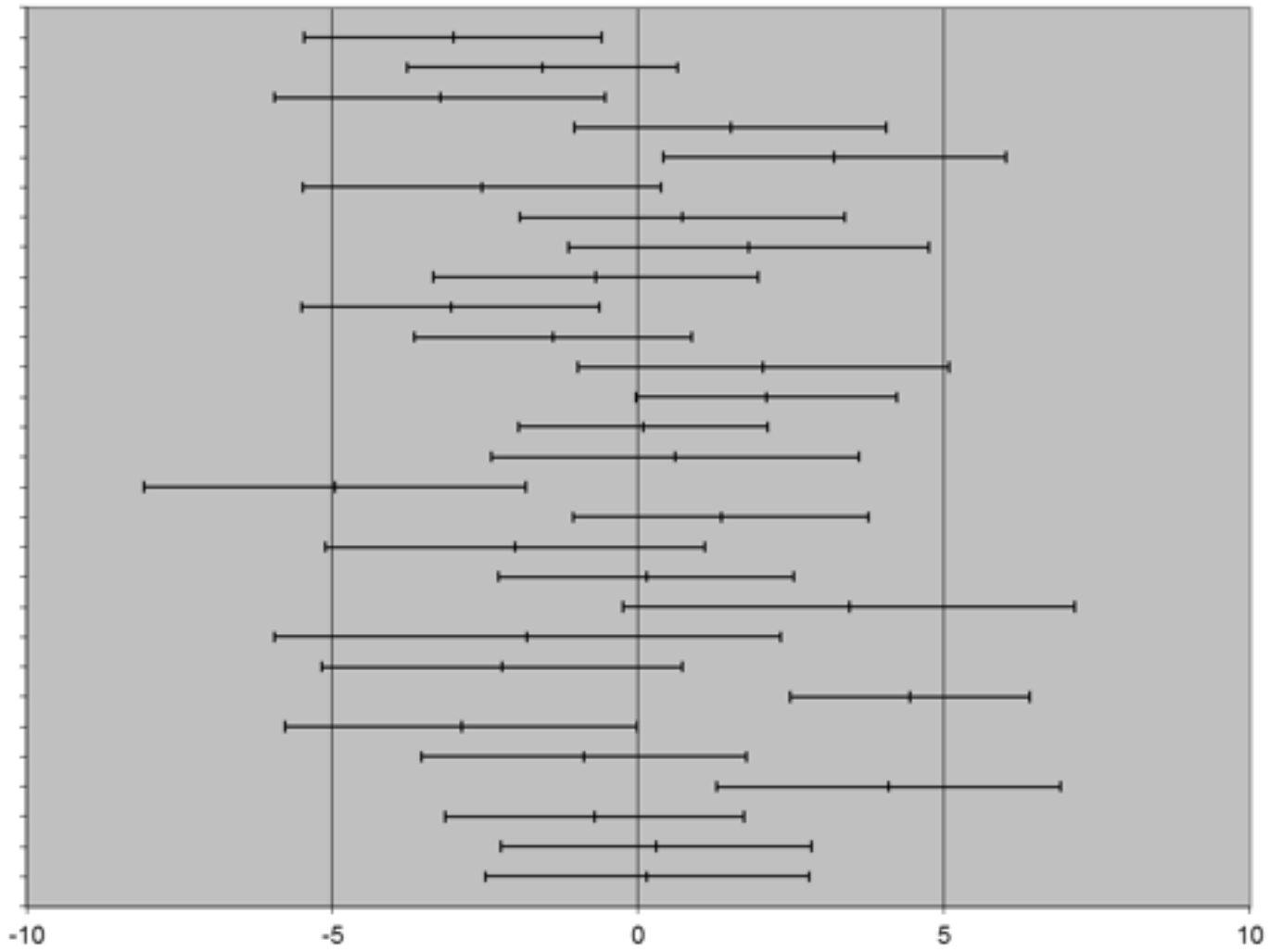
- School value added reflects student growth over two growth years
  - November 2007 to November 2009
  - Averages growth from Nov. 2007-Nov. 2008 and Nov. 2008-Nov. 2009

- Presented with 95% confidence intervals

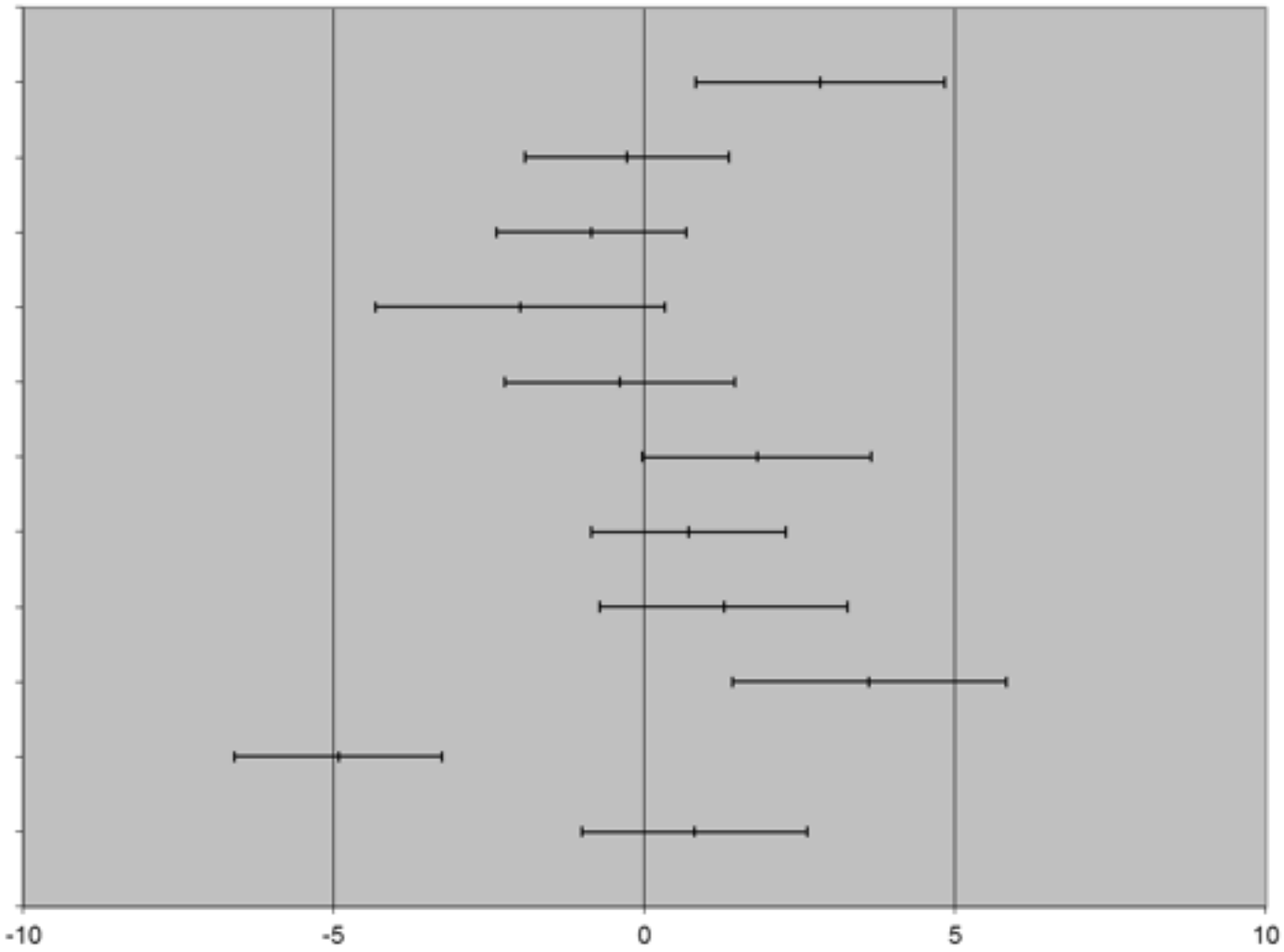
Math Value Added, Elementary, 2007-2009



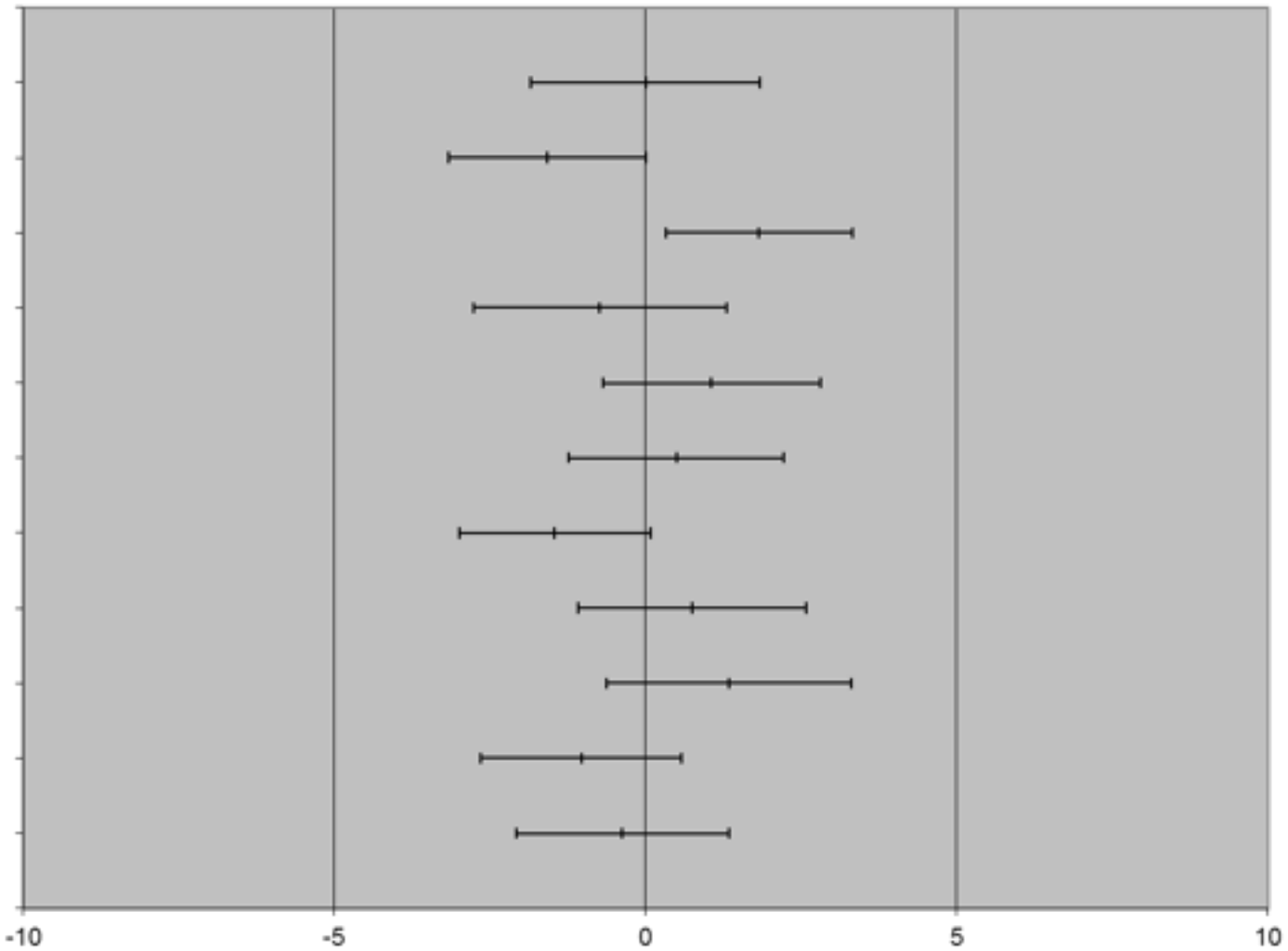
Reading Value Added, Elementary, 2007-2009



Math Value Added, Middle, 2007-2009



Reading Value Added, Middle, 2007-2009



Notes on value added charts

- Variance in elementary and middle school value added is tight in math and reading
- Don’t focus too much on having a strictly positive or negative value added
  - Most schools’ value added not statistically different from the district average
- Look at both school and grade level

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Value added over time

- Three overlapping 2-year periods
  - November 2005 to November 2007
  - November 2006 to November 2008
  - November 2007 to November 2009
  - VA is a “moving average”

- New Nov. 2005-2007, 2006-08 results
  - Only change in model is addition of FAY

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Control for FAY

- This year, the model controls for FAY
  - If FAY students grow more quickly than non-FAY students, that's controlled for

FAY/non-FAY gap in value added model		
	Elementary	Middle
Math	+2.0	+3.4
Reading	+2.8	+1.4

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Differential value added

- Differential value added
  - In the board report

- Measures value added for groups of students within a school
  - Do schools have different values added for different groups of students?
  - Do growth differences across groups at the district level also differ across schools?

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Differential value added

- Results for students w/disabilities
  - Students with disabilities gained 1.1 more points on the WKCE than observably similar students with disabilities across the district

Subgroup VA	VA	Std. Err	N
Disability	+1.1	(1.9)	64
ELL	+0.2	(1.7)	110
Low-income	*	*	201

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Differential value added

- Confidence interval of value added is two standard errors in either direction
  - For students with disabilities, it's +1.1 plus/ minus 2 x 1.9, or -2.7 to 4.9

Subgroup VA	VA	Std. Err	N
Disability	+1.1	(1.9)	64
ELL	+0.2	(1.7)	110
Low-income	*	*	201

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Differential value added

- No result for low-income status
  - Although low-income students grew more slowly across the entire district, the difference in growth was not measurably different across schools

Subgroup VA	VA	Std. Err	N
Disability	+1.1	(1.9)	64
ELL	+0.2	(1.7)	110
Low-income	*	*	201

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Differential value added

- No result for low-income status
  - Once we controlled for the district-wide effect of low-income, there were no measurable differences across schools between VA overall and VA for low-income students

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Differential value added

- No result for low-income status
  - Since this happened, every school has an asterisk for low-income value added
  - Note: just because there were no measured differences doesn't mean there aren't any

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VARC Website

varc.wceruw.org

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MMSD Value Added School Report

- This report may help you answer the following questions:
  - How much does a school contribute to student growth?
  - How does this impact differ across grade levels?

MADISON METROPOLITAN SCHOOL DISTRICT

Value-Added School Report

School Name, 2006-2008

This report presents value-added results at the school and grade level. The values added presented are for the period between the November 2006 and November 2008 administrations of the WKCE, and reflect two years of growth.

Value added is measured in reading and math. Value-added is a nationally recognized way of measuring growth that is used in districts nationwide. At the Madison Metropolitan School District, value-added measures have been developed in collaboration with academic experts from the University of Wisconsin - Madison.

Value-added measures are a more informative, accurate and equitable way to measure how your students progress from one year to the next. It is more informative because it measures the actual amount of growth, in WKCE scale score points; more accurate because it reflects growth at all levels of student achievement; and more equitable because it accounts for differences in student populations.

Student progress varies by grade, prior performance and demographics. Value-added measures account for these factors, comparing students along the following dimensions:

Value-added measures provide data to help you answer questions such as, How much does a school contribute to student growth? How does this impact differ across grade levels? Value-added estimates should be considered an additional piece of information available to help you make informed decisions.

School Level Value-Added is reported as the number of extra points students at a school scored on the 2006, 2007, and 2008 WKCE relative to observationally similar students across the district. A school with a zero value added is an average school in terms of value-added. Students at a school with a value added of 3 scored 3 points higher on the WKCE on average than observationally similar students at other schools.

Grade Level Value-Added measures a school's value-added specifically for those students making a specific grade progression. Under the header 3rd to 4th, value-added is presented for students who progressed from grade 3 to grade 4, either between the November 2006 and November 2007 tests or between the November 2007 and November 2008 tests. It is equal to the number of extra points students progressing from grade 3 to grade 4 at a school scored on the WKCE relative to observationally similar students making the same grade progression at other schools. Its average across schools is zero.

Averaging Explanation - Each value-added estimate covers two years of growth. This means that each value-added measure covers the growth of two years' worth of students, increasing sample size and improving the precision of the estimates.

Here are your results for Value-Added and Attainment (as determined by percent proficient).
Percent proficient is determined by the percentage of students scoring proficient or advanced on the WKCE.
This percentage is a weighted average of students' pre-test scores over the two year period.

School-Level Example: on average, the year-to-year gain between 2006 and 2008 for your students in reading was 3.4 scale score points higher than similar students district-wide.

Grade-Level Example: on average, the year-to-year gain between 2006 and 2008 for your students from 3rd to 4th grade math was 10.8 scale score points higher than similar 3rd to 4th grade students district-wide.

SCHOOL-LEVEL VALUE-ADDED, 2006-2008

	Value-Added Score	Percent Proficient
Reading	3.4	70
Math	3.9	42

GRADE-LEVEL VALUE-ADDED, 2006-2008

	Reading		Math	
	Value-Added Score	Percent Proficient	Value-Added Score	Percent Proficient
3rd to 4th	6.5	70	10.8	43
4th to 5th	-2.4	81	2.3	55
5th to 6th	3.8	62	-0.5	46

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Value Added Description and Scores
Page 1

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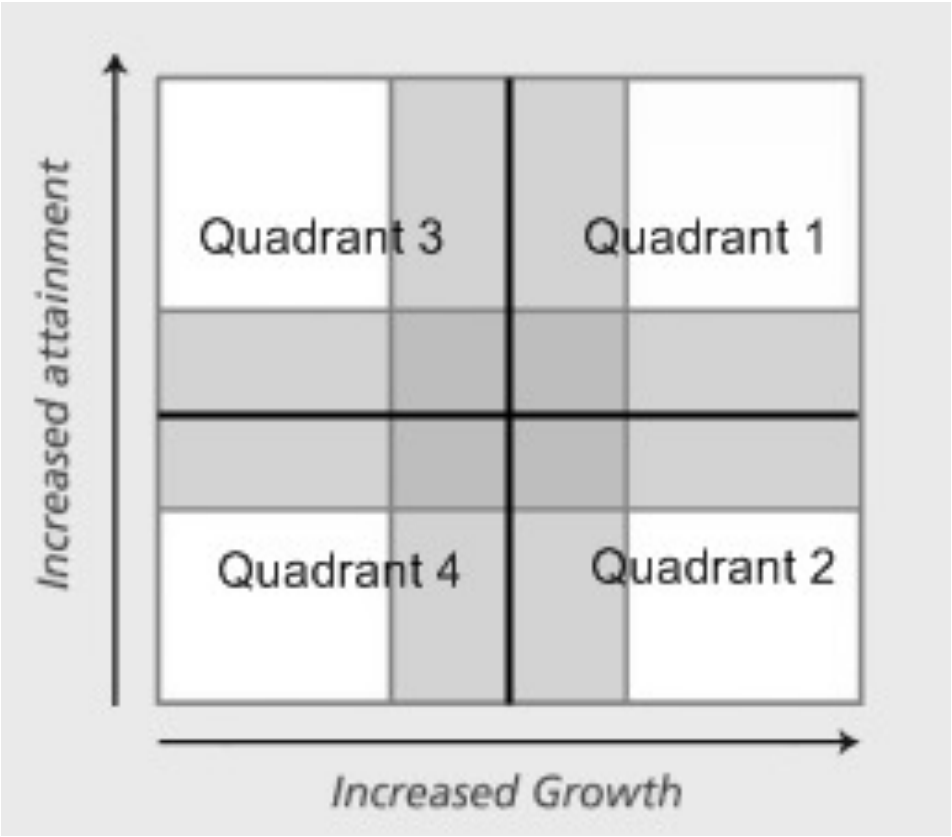
Analysis of Growth and Attainment Page 2

- A school's value added score can be compared to its percent proficient. This type of comparison will result in a school falling into 1 of 4 different quadrants.



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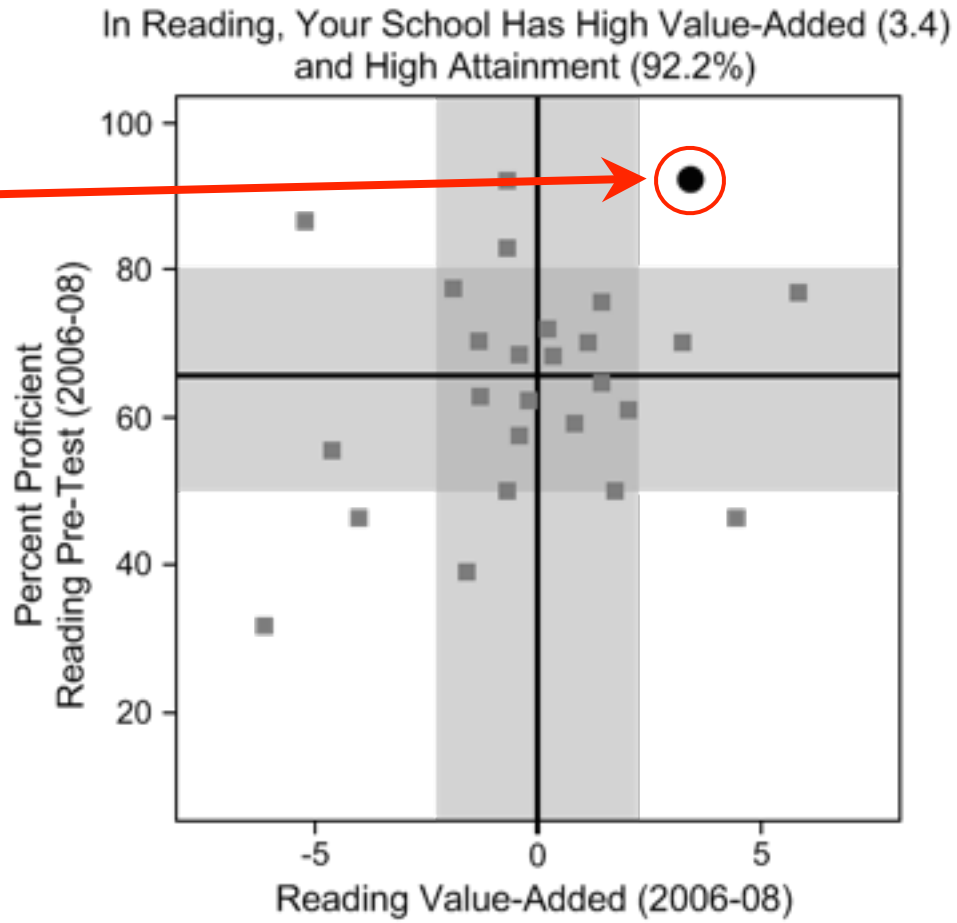
Analysis of Growth and Attainment

- Quadrants
  - Reading
  - Math



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Quadrant Analysis

- Perspectives
  - Superintendent analyzing schools
  - Principal assessing school and analyzing grade-level performance
- Cautions:
  - It is critical to understand the dangers of over-interpreting the data.

Value Added as a Diagnostic Tool

- This page may help you answer the following questions:
  - How certain should I be that my students are performing at a certain level?

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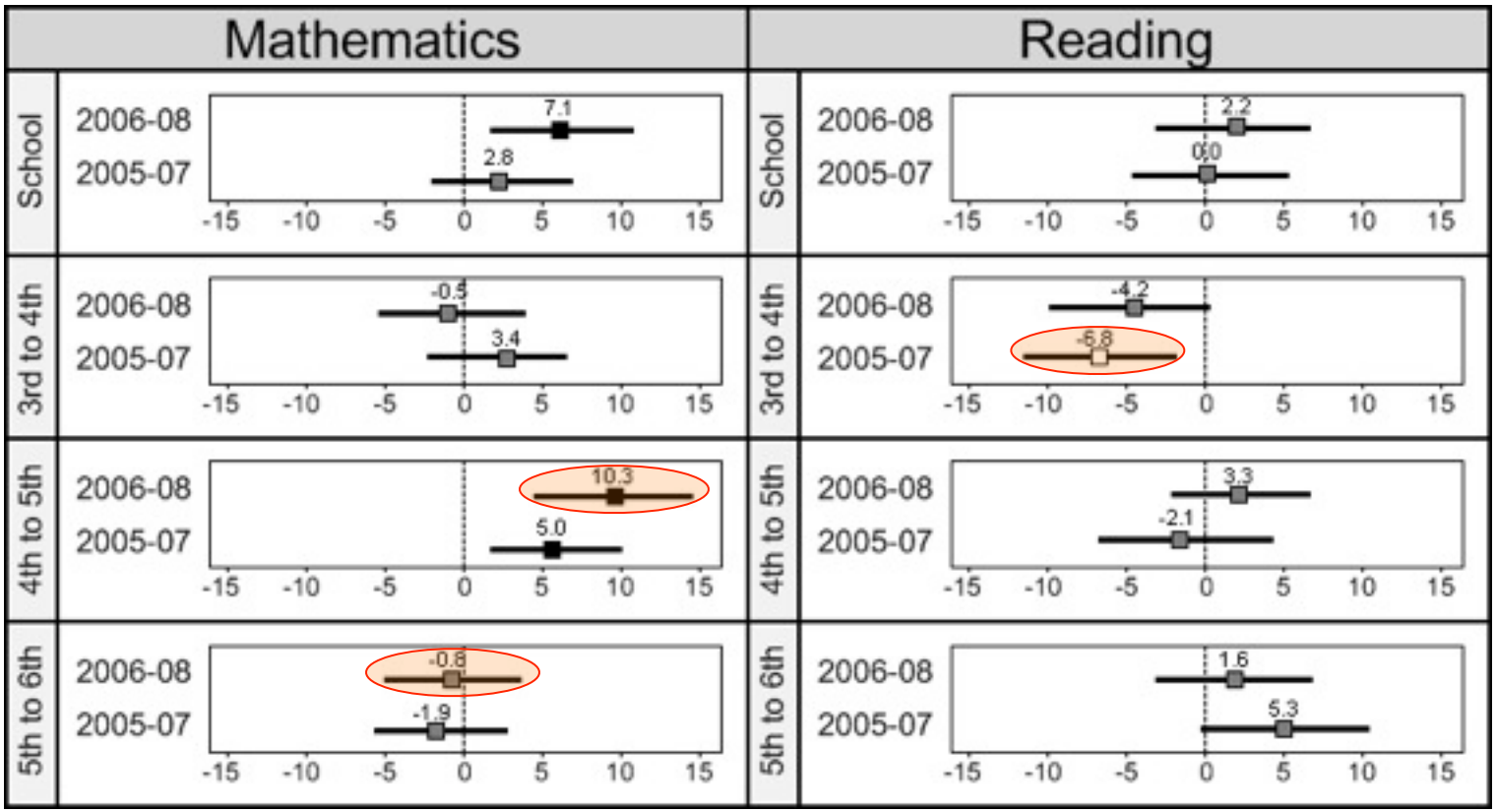
Value Added as a Diagnostic Tool

- Confidence Interval Example



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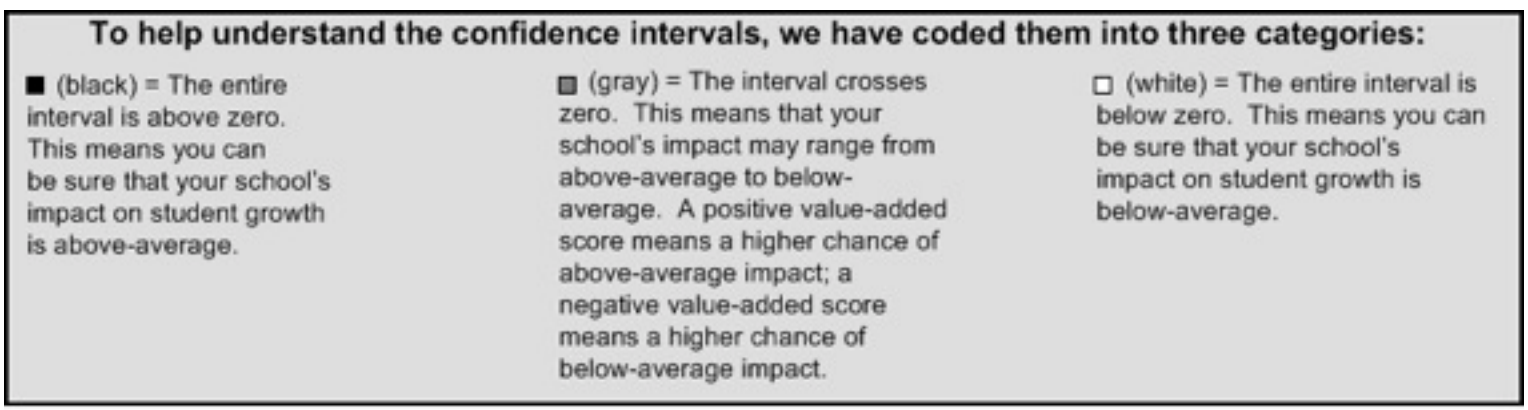
Value Added as a Diagnostic Tool

Information to interpret confidence intervals



If you have and questions about interpreting this report, please contact John Doe at JohnDoe@email.com

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