



STUDENT GROWTH PILOT PROJECT

Professional Development Webinar #5

Jeff Klein and Mike Kimbrel
Park Hill School District

May 6, 2011 Missouri Department of Elementary and Secondary Education


2 SESSION AGENDA

- 1) *PERSPECTIVES ON GROWTH DATA*
- 2) *QUESTIONS & COMMENTS VIA WRITTEN "CHAT"*



3 GOALS

- 1) Explain how value-added measures and student growth percentiles have been used in the Park Hill School District to support teaching and learning.
- 2) Describe considerations that practitioners should keep in mind as they use growth data (as one of multiple measures) to inform educational decisions.



THE GROWTH OF VALUE-ADDED MODELS IN PARK HILL


DESE Student Growth Pilot Project
May 6, 2011

Jeff Klein
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Director of Research, Evaluation, and Assessment

Webinar Outline

- Park Hill's growth history
- How we use value added data
- Questions & some answers



Park Hill's Goal

- Use better data than we did last year to make better decisions than we did last year
- Better decisions means better programs and processes for students

Making Inferences

- We have been making data based judgments and decisions for decades.
 - Is this program working?
 - Which school has the best learning?
 - Which grade level creates the highest student achievement?
 - Which schools or classrooms need an instructional makeover?
- Our questions haven't changed much, but the quality of the answers has.

Status & Improvement

- Starting in the early 1990s
 - ITBS
 - SAT 9
 - MMAT
 - MAP

Status & Improvement

SAT-g NCEs

6th grade did the best
2nd grade needs to improve

	1998	1999	2000	2001	2002
Grade 2	44.7	43.6	46.7	45.8	45.8
Grade 3	49.1	51.1	51.9	52.6	51.8
Grade 4	50.0	50.8	52.9	52.2	53.3
Grade 5	57.2	55.9	55.9	56.6	57.1
Grade 6	58.0	57.4	55.8	56.7	57.4
Grade 7	54.8	57.1	57.2	53.4	54.4
Grade 8	NA	NA	NA	NA	NA
Grade 9	55.2	56.2	54.9	57.1	57.0

Status & Improvement

SAT-g NCEs

4th grade did the best
3rd grade needs to improve

	1998	1999	2000	2001	2002	
Grade 2	44.7	43.6	46.7	45.8	45.8	+0.0
Grade 3	49.1	51.1	51.9	52.6	51.8	0.8
Grade 4	50.0	50.8	52.9	52.2	53.3	+1.1
Grade 5	57.2	55.9	55.9	56.6	57.1	+0.5
Grade 6	58.0	57.4	55.8	56.7	57.4	+0.7
Grade 7	54.8	57.1	57.2	53.4	54.4	+1.0
Grade 8	NA	NA	NA	NA	NA	
Grade 9	55.2	56.2	54.9	57.1	57.0	0.1

Cohorts are different...

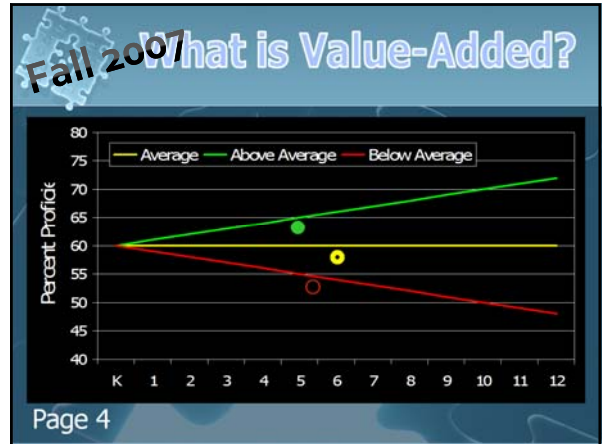
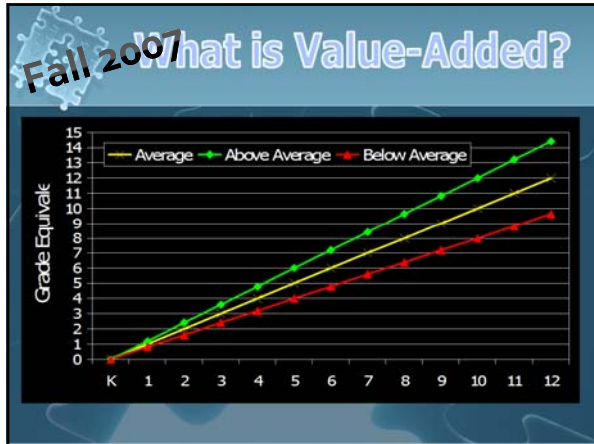
SAT-g NCEs

	1998	1999	2000	2001	2002
Grade 2	44.7	43.6	46.7	45.8	45.8
Grade 3	49.1	51.1	51.9	52.6	51.8
Grade 4	50.0	50.8	52.9	52.2	53.3
Grade 5	57.2	55.9	55.9	56.6	57.1
Grade 6	58.0	57.4	55.8	56.7	57.4
Grade 7	54.8	57.1	57.2	53.4	54.4
Grade 8	NA	NA	NA	NA	NA
Grade 9	55.2	56.2	54.9	57.1	57.0

We need to control for students' histories!

Cohort Improvement

- Started in 2002
 - Stanford 9 NCEs
 - EXPLORE to PLAN
 - PLAN to ACT
- The case of middle school math



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Cohort Improvement

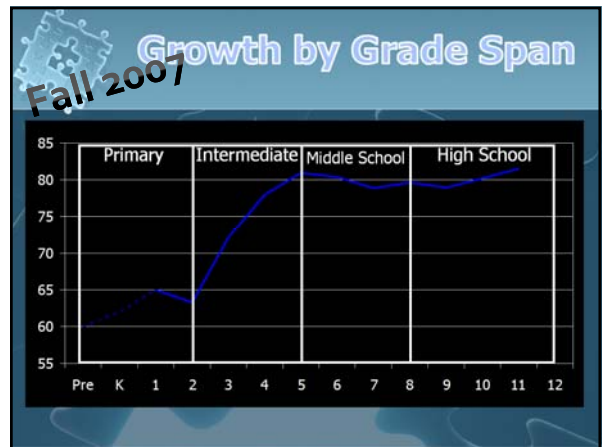
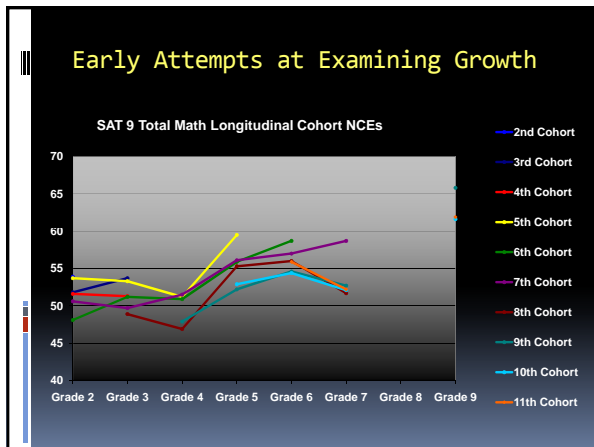
3rd grade did the best
7th grade needs to improve

SAT-9 NCEs

	1998	1999	2000	2001	2002	
Grade 2	44.7	43.6	46.7	45.8	45.8	
Grade 3	49.1	51.1	51.9	52.6	51.8	+6.0
Grade 4	50.0	50.8	52.9	52.2	53.3	+0.7
Grade 5	57.2	55.9	55.9	56.6	57.1	+4.9
Grade 6	58.0	57.4	55.8	56.7	57.4	+0.8
Grade 7	54.8	57.1	57.2	53.4	54.4	2.3
Grade 8	NA	NA	NA	NA	NA	
Grade 9	55.2	56.2	54.9	57.1	57.0	0.1

Mean NCE went up.
Why? Does it matter why?

- ### Cohort Improvement
- Expanded in 2007
 - MAP Terra Nova Percentiles
 - SAT 10 NCEs
 - Combined across multiple measures



Growth Percentiles

- Started in 2008
 - Produced by OSEDA
 - Growth per student

Growth Percentiles

Growth Percentiles

- Used for:
 - Program evaluation
 - Subgroup analysis

Value-Added

- Started in 2009
 - Slow, cautious implementation
 - Use of data was optional
 - Training provided for administrators
 - Added to Balanced Scorecard

What we're doing today

- 2 years of Value Added Reporting
 - District
 - Building
 - Grade Level
 - Teacher
- Process
 - Performance Improvement
 - District level analysis
 - Building Principals use with teachers
- Aligns with Dr. Harris' Recommendations

2010 District Value Added Report

Park Hill School District
MAP GLA Math

Estimated District Mean NCE Gain								
Grade:	3	4	5	6	7	8	Mean NCE Gain over Grades Relative to Growth Standard	
Growth Standard:	0.0	0.0	0.0	0.0	0.0	0.0		
2008 Mean NCE Gain:								
Std Error:								
2009 Mean NCE Gain:	0.1 Y	0.1 O	-1.2 R	-0.2 Y	1.6 O		1.3	
Std Error:	0.5	0.4	0.4	0.4	0.4		0.2	
2010 Mean NCE Gain:	4.2 O	0.9 O	0.7 O	3.3 O	3.6 O		4.2	
Std Error:		0.5	0.4	0.4	0.4	0.4	0.2	
3-Yr-Avg NCE Gain:								
Std Error:								
Estimated District Mean NCE Scores								
Grade:	3	4	5	6	7	8		
State Base Year (2008):	50.0	50.0	50.0	50.0	50.0	50.0		
2007 Mean:								
2008 Mean:	52.6	51.5	57.0	56.6	55.1	53.6		
2009 Mean:	54.7	52.7	57.5	55.9	56.3	56.7		
2010 Mean:	55.6	59.0	62.6	58.3	59.1	58.9		

O - Estimated mean NCE gain is above the growth standard by 1 standard error or more.
Y - Estimated mean NCE gain is at most 1 standard error below the growth standard but less than 1 standard error above it.
R - Estimated mean NCE gain is below the growth standard by more than 1 standard error.

2009 Value Added Summary Report for Park Hill School District MAP GLA Communication Arts

School Name	Year	4	5	6	7	8
Elementary	2009	0.9	5.4	--	--	--
Middle School	2009	--	--	--	-1.2	0.2
Elementary	2009	2.1	0.1	--	--	--
Elementary	2009	2.3	1.9	--	--	--
Elementary	2009	5.0	-0.5	--	--	--
Middle School	2009	--	--	--	1.6	1.7
Elementary	2009	5.2	-2.6	--	--	--
Middle School	2009	--	--	2.2	--	--
Elementary	2009	-1.0	2.0	--	--	--
Elementary	2009	1.3	0.9	--	--	--
Elementary	2009	-2.2	5.3	--	--	--
Elementary	2009	-3.7	1.0	--	--	--

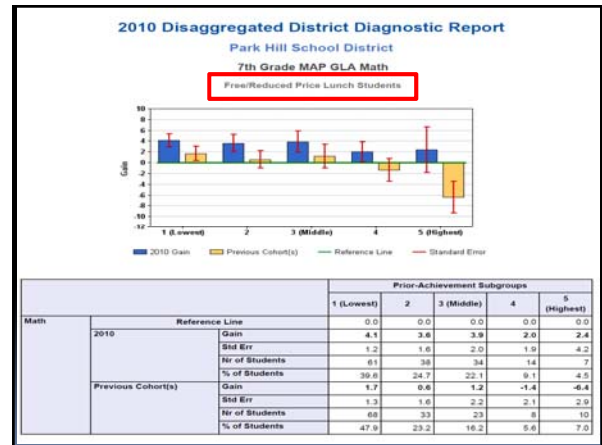
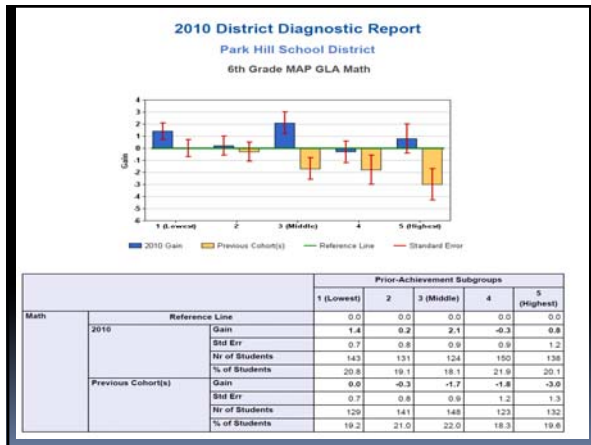
█ Estimated mean NCE gain is above the Growth Standard by 1 Standard Error or more.
█ Estimated mean NCE gain is at most 1 Standard Error below the Growth Standard but less than 1 Standard Error above it.
█ Estimated mean NCE gain is below the Growth Standard by more than 1 Standard Error.
█ The school does not have data for this test and subject in the most recent year.

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2010 Value Added Summary Park Hill School District MAP GLA Communication Arts

School Name	Year	4	5	6	7	8
Elementary	2010	6.5	1.1	--	--	--
Middle School	2010	--	--	--	0.1	1.6
Elementary	2010	10.1	2.0	--	--	--
Elementary	2010	12.6	4.1	--	--	--
Elementary	2010	8.8	-1.5	--	--	--
Middle School	2010	--	--	--	2.3	-0.5
Elementary	2010	12.8	3.0	--	--	--
School	2010	12.2	--	--	--	--
Middle School	2010	--	--	3.4	--	--
Elementary	2010	4.6	4.1	--	--	--
Elementary	2010	9.0	-0.0	--	--	--
Elementary	2010	6.6	6.7	--	--	--
Elementary	2010	8.0	3.0	--	--	--

█ Estimated mean NCE gain is above the growth standard by 1 standard error or more.
█ Estimated mean NCE gain is at most 1 standard error below the growth standard but less than 1 standard error above it.
█ Estimated mean NCE gain is below the growth standard by more than 1 standard error.
█ The school does not have data for this test and subject in the most recent year.



SAS® EVAAS® Teacher Value-Added Report for 2010 Park Hill School District

School: _____
Teacher: _____
Subject: _____

Year	vs. State		vs. District	
	Teacher NCE Gain	Std Error of Gain	State Growth Standard	Teacher Reference Gain
2009	-0.3	0.6	0.0	NDD
2010	3.9	0.7	0.0	Above
2-Yr Avg	1.8	0.5	0.0	Above

Interpreting the Teacher Value-Added Report

The Teacher Value-Added Report compares a teacher's influence on student achievement to the state and district averages. The Teacher Value-Added Report compares each teacher's gain to the state growth standard and the district gain. The comparison indicates how a teacher influences student progress in the given subject.

Teacher NCE Gain and Standard Error

The Teacher NCE Gain is a comparative measure of a teacher's influence on student achievement. It is calculated as the difference between the teacher's gain and the state growth standard. A positive gain indicates that the teacher's influence on student achievement is above the state growth standard, and a negative gain indicates that the teacher's influence on student achievement is below the state growth standard.

State Growth Standard

The State Growth Standard is an expectation for student growth based on the statewide distribution of student scores during the 2007-2008 school year.

Teacher Comparison

The Teacher Comparison indicates whether there is a difference in the progress rate for this teacher versus the comparison gain. The comparison gain is the gain made by the district in this subject and year. This gain is compared to an NCE gain based on the state population in the 2007-2008 school year. A positive gain indicates the district made more progress than the state growth standard and a negative gain indicates the district made less progress than the state growth standard.

Teacher Assignment

The Teacher Assignment indicates whether a teacher was assigned to a student in the current year or the previous year. The Teacher Assignment is assigned to students based on where they first met the teacher in the current year or the previous year. The Teacher Assignment is assigned to students based on where they first met the teacher in the current year or the previous year.

SAS® EVAAS® Teacher Value-Added Report for 2010 Park Hill School District

School: _____
Teacher: _____
Subject: _____

Year	vs. State		vs. District	
	Teacher NCE Gain	Std Error of Gain	State Growth Standard	Teacher Reference Gain
2009	-0.3	0.6	0.0	NDD
2010	3.9	0.7	0.0	Above
2-Yr Avg	1.8	0.5	0.0	Above

Interpreting the Diagnostic Report

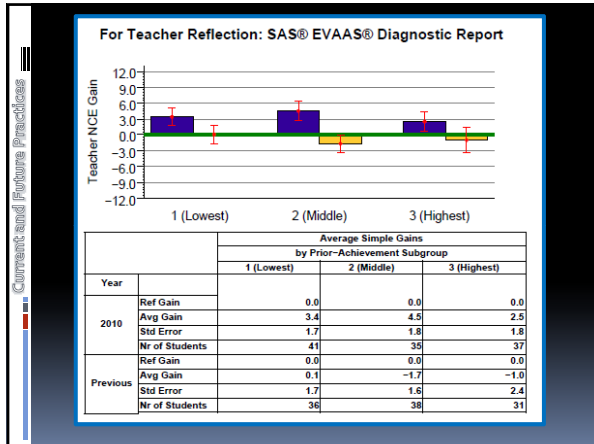
The Diagnostic Report provides information on the progress of students in the subject. The Diagnostic Report compares the teacher's gain to the state growth standard and the district gain. The comparison indicates how a teacher influences student progress in the given subject.

Teacher Comparison

The Teacher Comparison indicates whether there is a difference in the progress rate for this teacher versus the comparison gain. The comparison gain is the gain made by the district in this subject and year. This gain is compared to an NCE gain based on the state population in the 2007-2008 school year. A positive gain indicates the district made more progress than the state growth standard and a negative gain indicates the district made less progress than the state growth standard.

Teacher Assignment

The Teacher Assignment indicates whether a teacher was assigned to a student in the current year or the previous year. The Teacher Assignment is assigned to students based on where they first met the teacher in the current year or the previous year.




- ### Value-Added Assessment Results
- Used for:
 - Evaluating district effectiveness
 - Evaluating school effectiveness
 - Evaluating grade level effectiveness
 - Evaluating teacher effectiveness

Doug Harris' Recommendations for Using VAM

Use value added to measure school performance and hold schools accountable

Consider extending value added to other grades, subjects, and student outcomes.

Avoid the "air bag" problem. Don't drive value added measures "too fast."




Doug Harris' Recommendations for Creating and Reporting VA Measures

Include all students, including special education students, English Language Learners, and students with some missing data.

Adjust for sampling error.

Report confidence intervals.



- ### Benefits of Growth/VA Models
- More accurate data
 - More accurate inferences
 - Better decisions
 - Cultural shift toward growth
 - Challenges traditional beliefs about effectiveness
 - Good school/bad school
 - Achievement gap

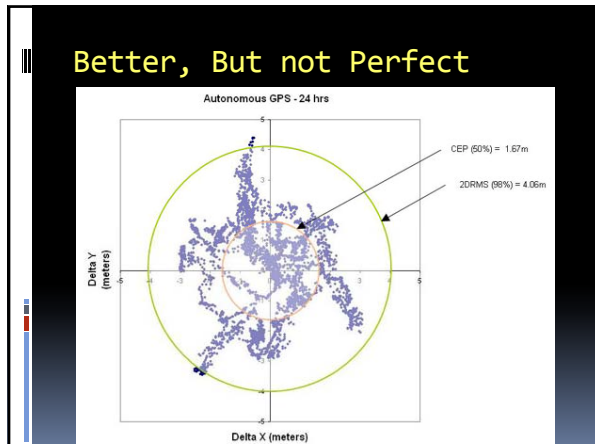
Better, But not Perfect

Navigation

- landmarks, position of celestial bodies
- Magnetic compass
- GPS

"GPS is proven to be a very valuable tool for the purposes of Surveying and Navigation. However, its users must be aware of its characteristics and cautious of its limitations."

Earth Measurement Consulting



- ### Future
- Continue to build capacity
 - Administrators
 - Building Principals
 - Teachers
 - Board of Education
 - Further integrate VA measures into our continuous improvement processes
 - Develop more VA reports for 2-3 grade
 - Use of additional assessments

Questions?

THE GROWTH OF VALUE-ADDED MODELS IN PARK HILL

DESE Student Growth Pilot Project
May 6, 2011


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Assistant Superintendent for Academic Services

Mike Kimbrel
Director of Research, Evaluation, and Assessment

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If you have questions you want me to forward to Drs. Klein & Kimbrel . . .

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MORE INFORMATION

www.dese.mo.gov/MOSIS/MCDS_pilot-student-growth.html

