

## An Introduction to Value-Added Progress Measures <u>A Guide for</u> Parents and Community Members

Value-added analysis is available as part of the Lubbock Independent School District's Empowering Educational Excellence (e3) framework—empowering people, improving educational practices and achieving performance excellence.





## **A Typical Classroom**

It's the beginning of another school year, and Ms. Ramirez greets her new class of 23 students. As she welcomes each student at the door, she knows the differences among them are likely profound. Some will already be good readers, while others won't know all the primary colors in the crayon box. Sound familiar?

The reasons for these discrepancies are many. Ms. Ramirez should not be held accountable for the academic level of her students when they arrive in her class. She should be held accountable for the progress her students make while they are in her classroom. Regardless of whether her students start the year above, at or below grade level, all of them should grow significantly during the time they are in her classroom.

People may reasonably disagree about how much progress students are expected to make, but most people agree that an educator's role is to take students wherever they are and add value to their lives. Educators add value in many ways, some of which can be measured and some of which cannot be measured.

## Lubbock ISD Guiding Principles

The Lubbock Independent School District Board of Trustees and district leadership are committed to achieving a vision for our district based on three guiding principles.

- Be the district of choice for the community by providing the highest quality programming and unprecedented support for students, teachers and parents in a safe and nurturing environment.
- Demonstrate high expectations for all students by providing challenging, effective and engaging educational environments and by continually monitoring students' academic growth toward college-readiness.
- Develop the district as a valued community asset by demonstrating success, equity in distribution and effective use of resources for our schools, and by creating a culture of openness and accountability for results.

## **Introducing Value-Added Analysis**

Based on our guiding principles, the Lubbock ISD is committed to ensuring that all students make strong academic achievement and progress. In fall 2010, the district began providing value-added reports as part of our Empowering Educational Excellence (e3) framework offering critical information to help educators measure their impact on students' academic progress from year to year. Using this growth metric, teachers and campus leaders can begin interpreting the impact of their curriculum, instruction, programs and practices on student learning.

The purpose of this guide is to focus on the importance of measuring student progress, how SAS® EVAAS® (Education Value-Added Assessment System) value-added data provides a fair and reliable student growth measure and how this information can help all stakeholders—including educators <u>and</u> parents—make decisions about student learning and adjust instruction to accelerate achievement.

Introductory value-added content reprinted with permission from Battelle for Kids.

### What is value-added analysis?

Value-added analysis is a tool that Lubbock ISD educators, Board of Trustees, parents and community members can use to help students succeed. Teachers, school leaders and district administrators use value-added information to identify the effectiveness of school processes and instruction on the growth of students. Value-added helps inform instructional decision-making. Parents use value-added information to learn how well their child's campus is doing to help groups of students improve. When used with other data and information, value-added analysis provides a comprehensive picture of our effectiveness in raising student performance.

## **Achievement and Progress**

How are they similar? How are they different?

Achievement. Progress. These two words are often used interchangeably, but their meanings are actually very different. Achievement is a point-in-time measure that evaluates how well students perform against a standard. In contrast, progress is measured by how much "gain" or "growth" students make over time, typically from the end of one year to the end of the next. Both of these measures are important, but they provide different information.

For years, in most states across the country, student achievement typically has been measured by how well students perform on state tests. Similarly, the performance of school districts and school buildings has been evaluated based on the percentage of students who pass the test. While providing some useful evaluative information, passage rates are incomplete and, in some ways, unfair measures of school effectiveness. Passage rates ignore the different starting points that characterize urban, suburban and rural schools. It is for this reason that progress measures are important.

The Lubbock ISD recognizes the need for a more complete and accurate understanding of student growth and the impact of the campus and teachers on that growth. For this reason, Lubbock ISD implemented value-added analysis, combined with student performance on the state assessments (TAKS/STAAR<sup>™</sup>), to measure the impact on student learning.

A more

complete

picture of

student

learning

#### Achievement

Measures students' performance at a single point in time

Relates to students' family background

Compares students' performance to a standard

Critical to students' post secondary opportunities

### Progress

Measures students' progress between two points in time

Not related to students' family background

Compares students' performance to their own prior performance

Critical to ensuring students' future academic success

#### Achievement & Progress: The Power of Two

By measuring students' academic achievement and progress, Lubbock ISD educators and parents will have a more robust, comprehensive picture of teacher and school effectiveness.

## The Importance of Measuring Student Progress

Why is measuring student progress important? Because it provides a clearer view of the impact a school and educators have on student academic performance. Without progress measures, schools that produce little academic growth can be ranked higher than schools that produce significant growth.

### What is a Value-Added Progress Metric?







A value-added metric makes use of multiple years of student achievement data to produce the most fair, accurate and reliable measure of student progress. Think of academic progress in terms of a child's growth chart. A growth chart shows a child's height at age two, three, four, etc. These data points can be plotted on graph paper to display that child's physical growth in height and weight over a specific period of time.

Similarly, if the mathematics achievement level of students is measured annually using state proficiency or nationally normed tests, the student's "growth pattern" in mathematics can be plotted and assessed.

Simply said, a progress metric assesses the impact Lubbock ISD schools and educators have on their students' academic performances. Using this metric, schools and districts can assess the impact of curriculum, instruction, programs and practices on student achievement. For example, Student A may score at the 96th percentile in mathematics in third grade, the 88th percentile in fourth grade and the 80th percentile in fifth grade. While he/she is still above the proficiency bar, his/her performance is declining relative to the proficiency bar.

In contrast, Student B may score at the 13th percentile in mathematics in third grade, the 27th percentile in fourth grade and the 49th percentile in fifth grade. Student B is making significant progress, but because he/she is still below the proficiency bar, his/her progress is devalued. While Student B is still below grade level expectations, he/she is making considerable progress in the right direction.

In Texas, some districts' success is based solely on the percentage of its students who have either "Met Standards" or are "Commended." In this type of system, Student A and his/her school are considered successful, while Student B and his/her school are considered failures. This completely ignores an important reality associated with each of the schools. Accountability systems must recognize both achievement and progress if a fair evaluation of schools and teachers is desired.

## **Projecting Student Performance**

In addition to providing information on student progress, value-added data can be used to project future academic performance. These projections can be used to identify at-risk students as well as those who need additional challenges. Using this information, teachers can provide the appropriate intervention and/or enrichment to maximize each student's growth. For example, Student B's projected growth in mathematics shows that while he/she is currently not proficient as a fifth grader, he/she is projected to be proficient by the end of sixth grade.



information about their child. Projections indicate where a student will likely perform if that student receives the typical educational experience. The goal for parents and for the student's teacher should always be to outperform the projection.



## The Benefits of Value-Added

Value-added analysis provides a reliable, objective measure of a school and educator's influence on student growth. With value-added information:

#### Teachers are better able to:

- Monitor students' progress—from low-achieving to high-achieving students—ensuring growth opportunities for all students
- Modify instruction to address all students' needs;
- Align professional development efforts in the areas of greatest need; and
- Learn best practices from teachers who facilitate high levels of student growth based on value-added information.

# District administrators and principals are better able to:

- Measure the impact of educational practices, classroom curricula, instructional methods and professional development on student achievement;
- Make better-informed, data-driven decisions about where to focus resources to help students make greater progress and perform at higher levels;
- Benchmark progress against other districts and schools; and
- Identify best practices from teachers who facilitate high levels of student growth based on value-added information, as well as from the leaders who support them, and implement more effective programs for their student population.

## **Value-Added Reports**

Lubbock ISD educators are using value-added analysis to measure student progress in mathematics and reading in grades 4–11, science in grades 5, 8, 10 and 11 and social studies in grades 8, 10 and 11. The progress reports provide important information to teachers about how curriculum and instruction are helping students make academic progress. They allow educators to see more clearly what is working well and not so well to help individual students and groups of students. Leaders are using the information to make important district-level and building-level decisions. Parents can use the information to learn about the progress the district and their child's school are making in raising student achievement.

Following are visual representations of copyrighted SAS® EVAAS® Web reporting provided for instructional purposes.

### Parents receive access to the following value-added reports:

		TAł	KS Mathe	matics			
		Estimate	d School M	ean NCE (	Sain		
Grade	5	6	7	8	Mean NCE Gain over Grades		
Growth Standard	0.0	0.0	0.0	0.0	Relative	e to	
State 3-Yr-Avg.	-1.5	-0.6	-0.5	-1.5	Growth Standard	State	
008 Mean NCE Gain	-3.2 R*	5.5 G*	-0.2 Y	3.5 G*	1.4	2.4	
Std Error	1.0	1.0	0.9	1.0	0.5	0.5	
009 Mean NCE Gain	0.7 G	-0.4 Y	-10.0 R*	3.3 G*	-1.6	-0.6	
Std Error	1.0	1.0	0.9	0.9	0.5	0.5	
010 Mean NCE Gain	-5.7 R*	2.5 G*	-8.3 R*	-1.8 R*	-3.3	-2.3	
Std Error	1.0	1.0	0.9	0.9	0.5	0.5	
3-Yr-Avg. NCE Gain	<u>-2.7</u> R*	2.5 G*	<u>-6.1</u> R*	<u>1.7</u> G*	-1.2	-0.2	
Std Error	0.6	0.6	0.5	0.5	0.2	0.2	
		Estimated	School Me	an NCE S	cores		
Grade	5	6	7	8			
State Base (2007)	50.0	50.0	50.0	50.0			
State 3-Yr-Avg.	47.5	46.8	46.5	45.9			
2007 Mean	56.2	54.2	54.5	59.7			
2008 Mean	56.9	61.8	53.8	57.8			
2009 Mean	52.5	56.4	50.7	56.9			
2010 Mean	49.5	55.3	47.8	48.7			

#### School Value-Added Reports

Provide information about performance/ progress groups by the campus overall and at each grade level. These reports give information about specific subjects.

	ABC	School Searc Reference Scho Middle School in AB	<b>:h</b> ol C Dis	trict	
		School Demographic In	format	ion	
Min Tested Grade	6	Max Tested Grade	8	Enrollment	276
% Economically Disadvantaged	92	% Title 1	100	% Disability	24
% Limited English Proficiency	2	% Bilingual	0	% English as a Second Language	0
% At Risk	56	% Gifted	0	% Career Tech	14
% Magnet	0	% Immigrant	0	% Migrant	1
% American Indian / Alaskan Native	3	% Native Hawaiian / Pacific Islander	0	% Asian	0
% African American	54	% Hispanic	38	% White	4
% Multi-Racial	1	% Female	45	% Male	55

District Value-Added Report ABC District TAKS Mathematics										
Estimated School Mean NCE Gain										
Grade	3	4	5	6	7	8	9	10	11	Mean NCE Gain
Growth Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	over Grades Relative to Growth
2009 Mean NCE Gain		3.6 G								0.8
Std Error		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
2010 Mean NCE Gain		2.1 G	-1.6 R*	-2.6 R*	3.9 G	0.4 Y	4.2 G	-2.1 R*	0.8 G	0.6
Std Error		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
2011 Mean NCE Gain		-1.2 R*	-2.9 R*	-3.2 R*	0.3 Y	-2.3 R*	1.5 G	-3.4 R*	-1.0 R*	-1.5
Std Error		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
3-Yr-Avg. NCE Gain		1.5 G	-0.4 R*	-2.6 R*	1.9 G	-1.2 R*	3.0 G	-3.0 R*	-0.3 R*	-0.1
Std Error		0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.0
Estimated School Mean NCE Scores										
Grade	3	4	5	6	7	8	9	10	11	
State Base (2007)	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	
2008 Mean	46.5	45.2	46.9	44.8	46.4	45.8	46.6	45.0	43.8	
2009 Mean	46.2	50.1	48.4	44.9	46.4	44.9	49.3	43.1	44.3	
2010 Mean	49.4	48.3	48.5	45.8	48.8	46.8	49.0	47.2	43.8	
2011 Mean	47.5	48.2	45.3	45.3	46.1	46.5	48.3	45.6	46.2	
G* - Estimated mean G* - Estimated mean Y - Estimated mean R - Estimated mean R* - Estimated mean	NCE gain NCE gain i NCE gain i NCE gain i	is above the is equal to a below the s more than is below the	e growth sta or greater th growth stan 1 standard growth sta	indeed by all an growth s dard by 1 s error below indeed by m	least 1 sta landard bu tandard en the growth ore than 2 :	ndard error. I by less the or or less. Islandard b itendard err	in 1 standa ut by 2 star ors.	rd error. Idard errors	or leas.	



School Search

		Quintile							
School	Growth	Gra	de 6	Gra	de 7	Grade 8			
	index.	Mean	Gain	Mean	Gain	Mean	Gain		
Alpha Middle School	-4.1	1	3	1	1	1	2		
Beta Middle School	2.6	3	5	2	4	3	5		
Delta Middle School	1.0	4	2	4	5	4	3		
Gamma Middle School	-0.3	5	4	5	3	5	3		
Epsilon Middle School	-0.5	-	-	1	1	1	1		

G - More than expected growth.				
Y - Expected growth.				
R - Less than expected growth.				

#### To access value-added reports:

- Visit https://lubbockisd.sas.com/evaas/public\_welcome
- Under the "Reports" tab, select the specific report you wish to view
  - 1. In the "Custom Reports" section, select School Search and enter the campus name
  - 2. In the "District Reports" section, select Value Added
  - 3. In the "Summary Reports" section, select Value Added and view the results by campus
  - 4. In the "School Reports" section, select Value Added and select the campus name

#### District Value-Added Reports

Show Lubbock ISD's overall progress by grade and subject compared to the typical growth of students across all schools in Texas.

#### Value-Added Summary Report

Provides campus comparisons of student progress by grade level.

#### School Search

Shows a list of campuses that match the demographic profile of your campus. Results of the School Search allow you to see your campus' ranking among a group of demographically similar campuses.

# *Understanding and Using the Reports*

Value-added reports contain simple color-coding to make the reports easier to understand and interpret.

## Value-Added Frequently Asked Questions

## **Q**: The value-added methodology seems complicated. How can people understand the measure?

A: While the statistical methodology used for value-added analysis is complex, the information produced is valid, reliable and presented in easy-to-read charts and graphs. The EVAAS® value-added methodology can be compared to any complex statistical process. For example, few people understand how to calculate the Consumer Price Index, but many people take advantage of the information and use it to make decisions in their daily lives. When thinking about value-added analysis, it may be helpful for educators to focus on the meaning of the information available and how it can help identify student needs rather than the actual methodology. If educators learn to trust the information derived from the value-added reports, they can use the information to make sound decisions about improving student achievement.

## **Q**: How can teachers be innovative or creative if student progress is based on test scores?

A: The value-added approach was developed to estimate each student's academic growth over his/her school year in each subject. It does not suggest a particular method for producing this growth. Thus, teachers can and must be flexible, innovative and creative in their approaches to move all students toward higher levels of achievement. The methods teachers use to help their students are still left to their professional judgment.

#### **Q**: What kinds of test data are used for value-added analysis?

- **A:** TAKS/STAAR<sup>™</sup> student performance results are used in value-added analysis as they meet the following criteria:
  - Are highly correlated with curricular objectives
  - Have enough "stretch" to measure the growth of both high-achieving and low-performing students
  - Meet appropriate standards of test reliability

## **Q**: Do socioeconomic or other demographic factors of a school's student population impact progress?

A: Leading experts have shown student demographic variables have no significant relationship with student progress measures. This is because value-added analysis measures the change in student growth over time (i.e., year to year), and factors that remain relatively constant over time, such as socioeconomic status, cannot account for the changes in growth that students regularly experience.

## **Q**: Can you measure the progress of schools and students with high mobility rates?

A: Yes, as long as the achievement data for those students are available. Value-added analysis takes advantage of the relationships that exist between student performance on TAKS/STAAR<sup>™</sup> tests. As long as adequate data points for mobile students are available, they can be included in the analysis. Students who attend a school for less than the entire school year are counted less in the analysis than students who are enrolled the entire year.

## **Q**: Why is measuring progress important?

A: Progress measures provide an assessment of student growth from year to year. Measuring student progress—and combining it with achievement information—helps Lubbock ISD teachers, schools and parents have a more robust, comprehensive picture of their impact on student learning.

#### **Q**: How can value-added information help educators improve teaching and learning?

A: Value-added analysis provides important diagnostic information that was not previously available with traditional achievement reporting. This information allows educators to assess their impact on student learning and engage in conversations about the efficacy of the current curriculum, instructional practices and programs. Value-added information also allows educators to project the future performance of students to identify those who need additional support.

#### **Q**: Is it possible to show progress with all groups of students, including high-achieving and low-performing?

A: Yes, the value-added methodology is sensitive enough to measure growth with all of these student subgroups because the TAKS/STAAR<sup>™</sup> tests that students take meet three criteria. First, these tests have enough "stretch" to differentiate the achievement levels of both high-achieving and lowperforming students. Second, the tests have appropriate levels of reliability. Third, the tests are highly correlated with the curriculum that teachers teach.

## **Q:** Does value-added analysis require additional testing?

A: No new testing is required. Because TAKS/STAAR<sup>™</sup> tests are administered routinely on a yearly basis, value-added analysis uses existing standardized and state-produced criterion from these tests to produce progress reports.



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Visit the e3 portal at www.BattelleforKids.org/LubbockISD to learn more about value-added analysis as part of the e3 framework.

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