

# **Value-Added Analysis**

## **Frequently Asked Questions**

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### **1. What is value-added?**

Value-added measures a teacher's effectiveness on a group of students' academic growth from year to year. Value-added uses a student's own academic performance as a basis for determining his or her academic growth and is not related to a student's socio-economic status or other personal characteristics that typically confound achievement-based measures. To dampen the error of measurement from any one single test, value-added uses all student test data simultaneously within the calculation.

### **2. How many HISD teachers receive individual value-added data?**

Each year, approximately 3,000 teachers receive one or more value-added reports for the grades and subjects in which they taught. Teacher-level value-added reports are produced for grades 3-8 in core academic subjects of math, science, social studies and language. For 2008-2009, the number of teachers with individual value-added data was 3,472.

### **3. How many HISD teachers who have 3 years or less of experience receive individual value-added data?**

Approximately 1,000 of the more than 3,000 teachers who received value-added reports had three years or less experience. (1,023 out of 3,472)

### **4. What does it mean when a teacher has a significantly negative value-added score?**

When a teacher has a significantly negative value-added score, it means that, on average, students taught by the teacher are not making expected levels of academic growth from year to year. Teachers could be losing ground with students resulting in them having lower levels of academic achievement levels than would be expected.

**5. How many HISD teachers since 2007 when value-added was first implemented in the district have significantly negative value-added scores?**

There are many great teachers in HISD. Unfortunately, we have value-added data that show approximately 421 teachers in the past three years have had significantly negative or regressive t-scores (teacher gain index) in any one subject based on cumulative running average data. This means that teachers could be losing ground with students and actually resulting in them academic achievement levels lower than what would be expected.

**6. If a teacher has a negative or regressive value-added score in one subject, but is doing well with students in other subjects, what will happen to the teacher?**

Contract decisions will not be solely based on a teacher's value-added scores. In this case, a principal may decide to provide focused professional development and/or assign a mentor to help the teacher improve his or her knowledge or skills in the subject area in which the teacher is struggling. The principal may also decide to change teaching assignments so that teachers are teaching content areas in which they are facilitating the greatest academic growth with students.

**7. Does value-added take into consideration the individual needs of students?**

Yes. Value-added measures a student's progress over time and compares a student's performance to their own prior performance. To dampen the error of measurement from any one single test, value-added uses all student test data simultaneously within the calculation.

**8. How can value-added information help educators improve teaching and learning?**

Value-added information allows educators to assess their impact on student learning, and can help initiate conversations about the efficacy of curriculum, instructional practices and programs. Value-added information also allows educators to better identify what is working well and areas for improvement to help individual students and groups of students. Above and

beyond the estimates for summative evaluation, there is a wealth of diagnostic information being provided via the web that is appropriate for educators.

**9. Is it possible for teachers to make positive impact/academic growth with all groups of students (e.g. gifted, special ed., low achieving)?**

Yes, it is possible for teachers to facilitate high levels of value-added progress with all groups of students. The value-added methodology used is sensitive to individual student's achievement levels. It measures student growth from the end of one year to the end of the next year, regardless of whether a student performs below or above grade level.

**10. Do socioeconomic or other demographic factors of a school's student population impact value-added scores?**

Leading experts have shown student demographic variables have no significant relationship with student progress measures. This may be because value-added analysis measures the change in student academic achievement levels from one point in time to another (i.e., year-to-year), and factors that remain relatively constant over time, such as socioeconomic status, have shown little or no impact on student progress. Specifically, EVAAS scores use students as their own control, so you do not need to control for economic status or other factors.

**11. What is a t-score?**

A t-score is a statistic that enables you to compare data, like comparing apples to apples and oranges to oranges. In the case of value-added, t-scores enable us to compare teacher value-added scores. The t-scores are calculated by subtracting the district's average gain (in a specific grade and subject) from the teacher's average gain and then dividing that by the teacher's standard error of measurement for his/her gain scores (also referred to as the teacher gain index).

**12. How can SAS EVAAS® use two completely different tests in the same analysis?**

TAKS, Stanford, and Aprenda scores are converted to Normal Curve Equivalent (NCE) and anchored to the 2005–2006 Texas TAKS distribution. This enables value-added scores to be tied to a stable and consistent scale.

**13. How long has HISD been using value-added data?**

HISD has been using value-added data since 2007. The primary uses of value-added during this time have been for diagnostic and school improvement planning purposes, as well as to provide performance bonuses to teachers and other school-based staff through the ASPIRE Award program. HISD board of education is now considering including value-added one of 34 performance measures in its teacher evaluation system.

#### **14. What value-added information is made available to teachers?**

Each year, teachers and administrators have access to a wealth of summative and diagnostic information via the web, including important projection information that will help teachers assess program quality, improve their instruction and to better meet the individual needs of students.

#### **15. Why does HISD want to include value-added as part of the teacher evaluation system?**

Nothing matters more to student success than teachers. Having great teachers in the classroom is one of the single-most important thing we can do at HISD for meeting the needs of our students and preparing them to graduate on time and be successful in college, careers and life. Value-added measures how well or not so well schools and teachers are doing in accelerating the academic progress of their students. Value-added, when used with other measures, provide a more complete picture of performance.

#### **16. How is value-added calculated if a student's testing history is incomplete?**

The value-added methodology uses up to 5 years of a student's testing history to calculate value-added scores. Students who have no standardized test scores for the year in which the analysis is conducted, those students are not included in a teacher or school's value-added calculation for that year. In the event that a student has an incomplete testing history, such that the student missed a standardized test in a subject or subjects over the entire testing history, an estimate is calculated based on the testing history of the student across the grades and subjects as compared to other students with a similar academic performance.

#### **17. What has research shown about the impact an individual teacher can have on student achievement?**

There is indisputable research that teachers matter most when it comes to student achievement. Specific research has been conducted to better understand exactly how much impact teachers can have on student achievement. Some key findings are as follows:

- Student's who had very effective teachers for three years in a row were able to improve their performance on standardized tests by more than 50% in comparison to students who had three ineffective teachers in a row. (*Sanders and Rivers, 1996*) A similar study conducted in Dallas ISD using a different student assessment and value-added methodology found similar results.
- A teacher's impact on student learning lasts up to four years. (*Sanders, 2005*)
- If a student has an ineffective teacher for two years, this decrease in progress cannot be made up. (*Rivers, 1999*)
- A teacher's effectiveness impacts all students, regardless of the student's achievement level. (*Rivers, 1999*)
- As teacher effectiveness levels increase, lower achieving students are the first to benefit. (*Sanders and Rivers, 1996*)
- The chances for fourth-graders in the bottom quartile of performance to pass a state's standardized test in ninth grade were less than 15 percent if their fifth, sixth, seventh and eighth grade teachers were drawn from the bottom 25 percent of the teacher pool (as measured by value-added), but a 60 percent chance of passing if they had four teachers drawn from the top 25 percent. (*Rivers*)