



**Measuring Teacher  
Effectiveness:  
An Introduction to  
Value-Added Analysis**

## An Overview

The Office of the State Superintendent of Education (OSSE) believes that all District of Columbia (D.C.) students should have access to an excellent education that prepares them for success in college, careers and future life opportunities. As part of this mission and in conjunction with its Race to the Top commitments, D.C. has adopted value-added analysis to measure the impact educators have on student achievement.

## Why use value-added analysis?

Picture this; it's the beginning of another school year and Mr. Johnson greets his new class of 21 fourth-grade students. As he welcomes each student at the door, he knows the differences among them are likely profound. Some will already be reading complex chapter books, while others are still reading leveled texts. Sound familiar?

The reasons for these discrepancies are many, but, regardless of where his students start the school year, all of them should learn during the time they are in the classroom.

Most people can agree that an educator's role is to take students wherever they are and help them progress in their learning. Educators impact student learning in many ways, some of which can be measured and some of which cannot. Value-added analysis provides an objective measure of the impact teachers have on student learning.

## How does the D.C. value-added model compare with the D.C. schoolwide growth model?

The intention of the D.C. value-added model and the D.C. schoolwide growth model is the same, which is to describe how well our teachers and schools help students learn from year to year.

D.C. has opted to use the D.C. value-added model to measure individual teacher effectiveness and the D.C. schoolwide growth model to measure school performance. The models depend on two distinct statistical methods.

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## What is value-added analysis?

Value-added analysis is a tool that the District of Columbia has adopted to provide one measure of teachers' success in helping students achieve academically over the course of the school year.

Value-added analysis is an objective, statistical method that accounts for factors beyond educators' control in order to assess a teacher's impact on student achievement.

When used with other information such as observations of teacher practice, value-added analysis provides a more comprehensive picture of teacher effectiveness in raising student performance.

For Race to the Top schools, value-added results will be one component of evaluations for teachers of math and English language arts (ELA) in grades 4–8. Mathematica Policy Research, an organization with significant experience evaluating public policy programs, is working with OSSE to calculate value-added measures for all D.C. schools participating in Race to the Top.

## How does the value-added model work?

The D.C. value-added model estimates the impact educators have on student achievement as measured by performance on the D.C. Comprehensive Assessment System (D.C. CAS). To isolate the teacher's effectiveness, the model also considers factors outside the teacher's control that are likely to influence student test scores. These control factors include students' prior test scores and student characteristics that may be related to student achievement, such as whether a student is limited English proficient or eligible to receive a free lunch.

In order to ensure that teachers are accurately linked to the students they have taught, teachers review and confirm their class lists and the percentage of assigned instruction they provided to each student—information that is then used in the value-added model. Final value-added results are obtained late in the summer using data from teacher-confirmed class rosters and the state's standardized tests from the prior school year.

## How are value-added results used?

- Value-added results serve as one component of teacher evaluations for Race to the Top LEAs. Individual value-added information must account for 50% of the evaluation for teachers of math and ELA in grades 4–8, unless the LEA has received a student achievement waiver from OSSE, in which case, it must account for at least 30% of the evaluation.
- Provide schools and teachers with objective information and context for a conversation about how the teacher is performing.
- Provide a more comprehensive picture of teacher performance when used in combination with observation data and other components of teacher evaluation systems.
- Help administrators identify effective teachers as well as those who may need additional support and resources. LEAs can use this information to leverage highly effective teachers in mentoring roles and utilize their strengths across schools and classrooms.

## About OSSE

The Office of the State Superintendent of Education (OSSE) is a high-performing, transparent agency that sets proactive policies, exercises vigilant oversight and directs resources that guarantee residents educated in the District of Columbia are among the highest performers in the nation; fully prepared for successful post-secondary learning and employment in the current creative economy.

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Visit [www.osse.dc.gov](http://www.osse.dc.gov) for additional information on the D.C. value-added model.