

## **2011-2012: Value-Added Model Frequently Asked Questions**

Assessment, Research, and Data Analysis  
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### **Why is there going to be a new standard for teacher evaluations?**

According to the Student Success Act, which is Florida law, and Race to the Top, teacher evaluations are, in part, to be based on the performance of students. The law indicates that at least 50% of a performance evaluation must be based upon data and indicators of student learning growth. The State of Florida decided to develop a Value-Added Model to meet the above requirement.

### **What is a value added model (VAM)?**

A Value-Added Model (VAM) analyzes student test data and ties it back to teaching. It is a statistical model that attempts to measure how much a teacher impacts the student's learning over the course of a year.

### **Who decided on Florida's VAM?**

The Florida Department of Education (FLDOE) convened a committee of stakeholders called the Student Growth Implementation Committee (SGIC) to select the type of VAM model that will be used, and the factors that should be adjusted for in the selected model. Technical expertise in VAM was provided through a contract with American Institutes for Research (AIR). The SGIC was made up of 27 members from across the state including teachers, school administrators, and District administrators, among others. The SGIC explored 8 types of models for FCAT Reading and Mathematics and chose a model that they felt worked best for both. This model was approved by Florida's Commissioner of Education.

### **How does a VAM work?**

A VAM calculates the expected amount of growth a student should make in a given year. The expected growth, also called predicted growth, is adjusted for certain characteristics of students, classrooms and schools that are included in the model. Florida's VAM model attempts to "level the playing field" by accounting for differences in proficiency and other characteristics of students assigned to teachers in the State of Florida. Based on the data, the VAM will show whether students made the expected amount of growth, have made less growth than expected, or have made progress beyond expectations.

## **What characteristics of students and classrooms are included in the VAM to adjust expected scores in the FCAT Reading and Math Models?**

The following student characteristics are included:

- Up to 2 years of prior achievement data
- Number of subject relevant courses in which a student is enrolled
- Students with Disabilities (SWD) status
- English Language Learner (ELL) status
- Gifted status
- Attendance
- Mobility (number of transitions)
- Retention (measured by difference from the most common age in grade)

The following classroom characteristics are included:

- Class size
- Similarity of students prior test scores in the class

## **What characteristics of students are NOT included in the VAM?**

Gender, race, ethnicity and socio-economic status are not included in the VAM model, because Florida law, known as the Student Success Act, specifically prohibits their inclusion into the model.

## **How does a VAM sort out the teachers' contributions from the students' contributions?**

Because individual students are traced over time, each student serves as his or her own "baseline" or control, which purportedly removes much of the influence of the unvarying characteristics of the student, such as race, socioeconomic factors and things that are not measured, such as student motivation.

## **How is a VAM score computed?**

Statisticians use a student's prior test scores and the other student and classroom variables in the model to calculate what a student should score on the test. This is called the *predicted score* or *expected score*. Then, the student's *actual score* is compared to the predicted/expected score. The difference between a student's predicted/expected score and actual score is assumed to be due to the teacher and the school, since the model has adjusted for many student and classroom variables. By aggregating all of the individual student results, statisticians can estimate how much a teacher improved student achievement compared to how much a "typical" teacher would have improved student achievement.

## **How is VAM different from the typical way of measuring student performance by looking at student learning gains?**

VAM measures **adjusted growth**. VAM attempts to answer the question, “How much value did a teacher add to their student’s growth?” **Learning gains**, as used for school grades, measure changes in student scores from one year to the next without taking into account prior achievement or other student characteristics and without adjusting for student or classroom differences.

### **What assessments are used to calculate my VAM score?**

For 2011-12, VAM models have been developed by FLDOE for FCAT 2.0 Mathematics and Reading Tests, taking into account FCAT scores from the previous two years. Differences between students’ predicted/expected scores and actual scores on these assessments will be the basis for teacher VAM scores. Each teacher’s VAM score will be an aggregate of the students that they teach.

### **Can I know what my students expected scores are at the beginning of the school year?**

Statisticians use the terms “*expected*” and “*predicted*” in ways that are different from the ways non-statisticians use them. Florida’s VAM models do not actually predict into the future, but rather explain the past. Because statisticians need both the “before” and “after” test scores for each student to calculate each student’s predicted/expected score, the score cannot be determined at the start of the school year. Predicted/expected scores for each individual student are calculated after the scores of all other students in the State of Florida are known.

### **Are other VAM models going to be developed?**

Yes. A VAM is currently being developed for the Algebra End-of-Course (EOC) Assessment. Over the next few years, the plan is for additional VAMs to be developed for other EOCs (e.g., Biology, Geometry, US History, and Civics). FLDOE is reviewing other standardized tests (e.g., AP, IB, etc.) for possible VAM development.

### **How will the VAM scores be incorporated into the IPEGS evaluation system?**

VAM scores will be made comparable by standardizing them within grade level and subject area. A teacher’s aggregated VAM score will be converted to a percentile, similar to how a student’s SAT score is converted into a percentile. Percentile ranks will then be used to classify teachers for the student achievement component of teacher evaluations. This component will be incorporated into IPEGS as Performance Standard 1: Learner Progress and will make up 50% of a teacher’s overall performance evaluation, as required by the Student Success Act. The other 50% of a teacher’s overall evaluation will be based on IPEGS Standards 2 through 8

for teachers and 2 through 7 for Instructional Support Professionals and Student Services Professionals.

### **For the 2011-12 School Year**

#### **I am a fifth grade teacher and I teach both reading and math. Will I get 2 scores?**

Yes, you will receive a reading VAM score and a mathematics VAM score. However, the District will combine your scores and you will receive an aggregate score based on both your students' reading and mathematics growth.

#### **I don't teach language arts or mathematics. Will I still receive a VAM score?**

If you teach students who are required to take the FCAT 2.0 Reading subtest, you will be assigned a VAM score, if available, based on your students' reading performance. (Note: This is contingent upon the FLDOE producing these VAM scores.) If you do not teach students who took the FCAT 2.0 Reading subtest, you will be assigned a VAM score based on student reading performance at your school.

#### **I am an elementary teacher in the second grade and my students don't take the FCAT 2.0, will I still receive a VAM score?**

Yes. You will be assigned a VAM score based on student reading performance at your school.