

# Frequently Asked Questions Regarding the Final VAM Detail Report 2016-2017

Prepared by Research Services, Miami-Dade County Public Schools 12/13/2017

## **Q 1: What do you mean by the Core teacher courses/outcomes?**

A 1: The Core outcomes are created by the Florida Value-Added Model or one of the two District models.

The **Florida VAM** created the outcomes for teachers of

- Reading/ELA in grades 4-10 (based on the FSA results)
- Mathematics in grades 4-8 (FSA)
- Algebra 1 in Grades 8-9 (EOC Assessment)

The **District Covariance Adjustment Models** created the outcomes for teachers of

- Reading and Mathematics in grades K-3 (SAT in grades K-2, and FSA in grade 3)
- Science in grades 5 and 8 (FCAT)
- Civics in grade 7 (EOC Assessment)
- Geometry in grades 8-10 (EOC Assessment)
- Algebra 2 in grades 9-11 (EOC Assessment)
- Biology in grades 8-11 (EOC Assessment)
- US History in Grade 11 (EOC Assessment)
- Certain AP courses (AP exams). The list of AP exams used in the District models is presented later in the document

**District Achievement Models** created the outcomes for teachers of

- Various other courses when the students participated in the AP, IB, AICE examinations
- Certain courses when students participated in the Industry Certification exams
- ESE courses when students participated in the FSAA

## **Q 2: What do you mean by the Non-Core teacher courses/outcomes?**

A2: For teachers of courses not mentioned above, the results of their students on Reading/English Language Arts (ELA) assessments were used to create outcomes on the District model.

Specifically, student results on the following exams were used:

- SAT reading in grades K-2
- FSA ELA in grades 3-10
- College Board SAT, ACT, or PERT reading in grades 11-12

When these types of data were used to determine the student growth component of an overall evaluation for a non-core teacher, the name of the assessment is followed by “NON-CORE”.

### **Q3: How did you handle student results on the advanced academics exams?**

A3: Student results on the AP, IB, and AICE exams were used to create teacher outcomes using both the District Covariance Adjustment Model and the District Achievement Model.

The District Covariance Adjustment Model was used to create teacher outcomes using the student results on the following AP exams:

- Biology
- Calculus AB
- Calculus BC
- Chemistry
- Computer Science A
- Computer Science Principles
- English Language & Composition
- English Literature & Composition
- Environmental Science
- European History
- Human Geography
- Macroeconomics
- Physics 1
- Physics C: Mechanics
- Psychology
- Seminar
- Statistics
- U.S Government & Politics
- U.S History
- World History

The District Achievement Model was used with student results on all other AP exams as well as with student results on IB and AICE examinations.

#### **Q 4: What do you mean by the Outcome? Why are there negative numbers in that column?**

A 4: It depends on the model that was used to create the outcome.

##### **Florida VAM**

###### ELA and Mathematics

The FLDOE provided the 3-year aggregated results from the Florida Value-Added Model in ELA and Mathematics. The reported outcome is the result of several calculations performed by the FLDOE's contractor.

1. First, the difference between the average performance of a teacher's students and the expected performance of academically and demographically similar students in the State was found. The expected performance was determined based on each student's prior achievement and certain demographic, academic, and classroom characteristics.
2. Then, that difference was divided by the difference in the mean scale scores between assessment results in two consecutive academic years for a specific grade level and subject area (average amount of academic growth). This result can be interpreted as a percentage that the difference between the average student performance and the expected performance makes of the average annual amount of academic growth.
3. Finally, these results were aggregated across grade levels, subject areas, and academic years.

Positive values of the Outcome show that the average performance of a teacher's students exceeded the expected performance of academically and demographically similar students in the State, whereas negative values show that it fell below the expectation.

###### Algebra 1

The Outcome can be described as the difference between the average performance of a teacher's students and the expected performance of academically and demographically similar students in the State. The expected performance is determined based on each student's prior achievement and certain demographic, academic, and classroom characteristics. The numbers are in scale score points. Positive values show by how much the average performance of a teacher's students exceeded the expected performance of academically and demographically similar students in the State, whereas negative values show by how much it fell below the expectation. The Outcome is based on the student assessment data in the last academic year.

### **District Covariance Adjustment Models**

The Outcome can be described as the difference between the average performance of a teacher's students and the expected performance of academically and demographically similar students in the District. The expected performance is determined based on each student's prior achievement and certain demographic and academic characteristics. The numbers in the Outcome column are in scale score points (except for AP outcomes where the numbers represent the difference between the percentage of students passing an AP exam [with scores of 3-5] and the expected percentage). Positive values show by how much the average performance of a teacher's students exceeded the expected performance of academically and demographically similar students in the District, whereas negative values show by how much it fell below the expectation. The Outcome is based on the student assessment data in the last academic year.

### **District Achievement Models**

The Outcome is the difference between the passing rate of a teacher's students on all of these assessments combined and the average Districtwide passing rate for a given broadly defined subject area, such as Mathematics or Social Science. The percentages are shown as decimals with positive values indicating by how many percentage points the passing rate of the teacher's students exceeded the Districtwide average passing rate in a particular subject area. The negative values indicate by how many percentage points the passing rate for the teacher's students fell below the Districtwide average passing rate. The Outcome is based on the student assessment data in the last academic year.

### **Q 5: What do you mean by the Standard Error?**

A 5: Although teachers may be instructing demographically and academically similar students, they still may have different mixtures of such students in their classrooms. Students' achievement on standardized tests could be different on different test forms or on different days. Standard Error is the measure of uncertainty in the Outcome caused by these and other factors. It is similar to the Margin of Error often used when reporting poll results.

### **Q 6: What do you mean by the "VAM Ratio"?**

A 6: In order to take into account the uncertainty present in the Outcome, we used an approach similar to the one used in Statistics when calculating confidence intervals. For instance, the numeric interval extending from the Outcome minus twice the Standard Error to the Outcome plus twice the Standard Error can be thought of as the approximate 95% confidence interval for a teacher's "true" Outcome.

We used a simplified version of the confidence interval approach, in which we calculated the VAM Ratio by dividing the Outcome by its Standard Error. We then used the VAM Ratio to

assign points to teachers for each grade level and subject area separately. These points were then aggregated and used as part of the overall teacher evaluation. Florida VAM also used the confidence interval approach to assign a final numeric value to a teacher VAM outcome but without using the VAM ratio. Consequently, in these cases, the VAM ratio is indicated as “NA”.

**Q 7: How were the points assigned?**

A 7: With Florida VAM outcomes, the teacher effectiveness category is already assigned. We transformed the category to points as follows:

- Unsatisfactory – 8.5 points (except when a specific safeguard in the table below was applicable)
- Developing/Needs Improvement – 17 points
- Effective – 25.5 points
- Highly Effective – 34 points

With District models, we used the following assignment rules for each data source (grade level, subject area, etc.):

- If VAM Ratio < -3, assign 8.5 points,
- If  $-3 \leq \text{VAM Ratio} < -1$ , assign 17 points,
- If  $-1 \leq \text{VAM Ratio} \leq 2$ , assign 25.5 points,
- If VAM Ratio > 2, assign 34 points

This assignment reflected the fact that in 2016-2017, the weight given to the student growth component in the overall summative performance evaluation in M-DCPS was 34%.

In addition, we used the following supplementary safeguards:

Model	Assessments Affected	Safeguards
District Achievement/Learning Gains Model	FSAA, IC, AP, IB, AICE except Foreign Language/Literature	1. Change the calculated points to 34 points if the passing rate is at least 75%.
District Covariance Adjustment Model	AP*	2. If the passing rate is at least 5%, assign 17 points when the calculations result is 8.5 points.
District Achievement/Learning Gains Model	Foreign Language/Literature AP, IB, AICE Exams	1. Change the calculated points to 34 points if the passing rate is at least 95%. 2. If the passing rate is at least 5%, assign 17 points when the calculations result is 8.5 points.

Model	Assessments Affected	Safeguards
District Covariance Adjustment Model and Florida VAM	All assessments under the District Covariance Adjustment Model except AP and all those under Florida VAM	<ol style="list-style-type: none"> <li>1. Change the calculated points to 34 points if the percentage of students meeting/exceeding expectations is at least 85%.</li> <li>2. If the percentage of students meeting/exceeding expectations is at least 30%, assign 17 points when the calculations result in 8.5 points.</li> </ol>
Florida VAM	FSA ELA in grades 4-10, FSA Mathematics in grades 4-8, and Algebra 1 EOC in grades 8-9	<ol style="list-style-type: none"> <li>1. When the Florida VAM assigned category is “unsatisfactory”, but the VAM ratio (the ratio of the teacher VAM estimate to its standard error) exceeds -3, assign 17 points.</li> </ol>

\* For certain AP exams with at least 50 student results Districtwide

**Q 8: My Summative Performance Evaluation (SPE) form shows 19.71 points for the Student Progress part of the evaluation, but the Web Report shows different points for different subjects and grade levels. Explain how you calculated the final SPE result.**

A 8: Let’s consider an example. Suppose an elementary school teacher received the following points:

GRADE	ASSESSMENT	# SCORES	POINTS
1	SAT-10 MATH	22	17
2	SAT-10 MATH	23	17
3	FSA MATH	21	25.5

To calculate the number of points shown on your SPE form, we found the weighted average of all points using the numbers of students as weights. In this example, the results would be found as

$$(17.0*22+17.0*23+25.5*21) / (22+23+21) = 19.71$$

**Q 9: I taught only mathematics in middle school during 2016-2017, and I had only 78 students. Why does my VAM Detail Report show ELA-Math FSA, 230 students, and NA for the grade level?**

A 9: In 2016-2017, the FLDOE provided the Florida VAM results in which teacher VAM results were aggregated across subject areas (English Language Arts and Mathematics), grade levels, and three academic years (2014-2015, 2015-2016, and 2016-2017). Because in most cases the final outcome reflected the results of a teacher’s students in different years, grades, and

subjects, we used the label NA for the grade level. The number of student results shown in the report reflects the students taught by the teacher during the last three academic years.

**Q 10: I taught in two different schools. Does that affect how my results are calculated and shown in the report?**

A 10: When the State reports the results of the Florida VAM calculations, it reports the number of students separately for each school, but aggregates the results of the model to the subject area and grade level. That is, if a teacher taught in two different schools, the Florida VAM results will be the same for both schools. We followed the same logic when calculating and reporting the results of the various District models.

**Q 11: SAT, ACT, and PERT can be administered many times during an academic year. Which results do you use to calculate the non-core VAM points?**

A 11: Because we want to be able to attribute student results to an effort of a particular teacher during an academic year, only the results of students who took the SAT/ACT, or PERT at the end of an academic year (March, or later) and who took the PSAT in October of a previous academic year are used.

**Q 12: I am a mathematics coach at a school. Are my “VAM points” based solely on the mathematics results of students in my school?**

A 12: If you did not instruct any students during an academic year (based on students' schedules) you are considered an instructional employee with schoolwide responsibilities. For all such instructional employees the “VAM points” were calculated as a weighted average of all points of all “core” teachers in your school derived from the District models and the points assigned to your school using the State’s three-year aggregated file based on the Florida VAM.

## Summary of Models used in 2016-2017

### Florida VAM

Grade	Assessment	State Model
4-10	Reading FSA	Florida VAM
4-8	Mathematics FSA	
8-9	Algebra EOC Assessment	Florida Algebra VAM

### District Covariance-Adjustment Models

Grade	Assessment	Academic Covariates	Demographic Covariates
K	<i>Stanford Early School Achievement Test (SESAT)</i> Reading and Mathematics	I-Ready (Fall of the Current School Year)	ELL Status Gifted Status SPED Status Relative Age Attendance
1-2	Stanford Achievement Test (SAT) Reading and Mathematics	SESAT/SAT Reading or Mathematics	
3	Florida Standards Assessment (FSA) ELA and Mathematics	SAT Reading and Mathematics FSA ELA or Mathematics for students repeating Grade 3	
5, 8	FCAT 2.0 Science	FSA ELA, Mathematics	
7	End of Course (EOC) Civics	FSA ELA	
8-10	EOC Geometry	EOC Algebra 1	
9-11	EOC Algebra 2	EOC Geometry	
8-11	EOC Biology	FSA ELA	
11	EOC US History	FSA ELA	
11-12	SAT, ACT, Florida Postsecondary Education Readiness Test (PERT) Reading Components	PSAT Reading	
9-12	AP	PSAT Subtests for students in grades 10-12 FSA ELA in grade 8 (Prior year FSA ELA for students in grade 9)	

### District Achievement/Learning Gains Models

Grade	Assessment	Model Type
8-12	AICE, AP, IB	Achievement
4-10	FSAA	Achievement
6-12	Industry Certification	Achievement