

Frequently Asked Questions Regarding the Final VAM Detail Report (Core Courses only) 2013-2014

Prepared by Research Services
Miami-Dade County Public Schools
January 2015

Q 1: What do you mean by the Core Courses?

A 1: These are the courses covered by the Florida Value-Added Model or the District models. Specifically, the **Florida VAM** created the outcomes for teachers of

- Reading in grades 4-10 (based on the FCAT results)
- Mathematics in grades 4-8 (FCAT)
- Algebra in Grades 8-9 (Algebra 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 FCAT in grade 3)
- Science in grades 5 and 8 (FCAT)
- Civics in grade 7 (Civics EOC Assessment)
- Geometry in grades 8-10 (Geometry EOC Assessment)
- Biology in grades 8-11 (Biology EOC Assessment)
- US History in Grade 11 (US History EOC Assessment).

Finally, the **District Learning Gains and Achievement Models** created the outcomes for teachers of

- Reading and Mathematics for certain SPED students (FAA)
- Various other courses when the students participated in the AP, IB, AICE, or Industry Certification testing.

The summary of various models used for teacher evaluation purposes in 2013-2014 is presented in the table on the next page.

Summary of the State and District Models

State FCAT and Algebra Models

Grade	Outcome	State Model
4-10	Reading FCAT	State FCAT VAM
4-8	Mathematics FCAT	
8-9	Algebra EOC Assessment	State Algebra VAM

District Covariance-Adjustment Models

Grade	Outcome	Academic Covariates	Demographic Covariates
K	Stanford Early School Achievement Test (SESAT) Reading and Mathematics	Florida Assessments for Instruction in Reading (FAIR)	ELL Status Gifted Status SPED Status Relative Age
1-2	Stanford Achievement Test (SAT) Reading and Mathematics	SESAT/SAT Reading or Mathematics	
3	Florida Comprehensive Assessment Test (FCAT) 2.0 Reading and Mathematics	SAT Reading and Mathematics FCAT 2.0 Reading or Mathematics for students repeating Grade 3	
5, 8	FCAT 2.0 Science	FCAT 2.0 Reading	
7	End of Course (EOC) Civics	FCAT 2.0 Reading	
8-10	EOC Geometry	Algebra EOC	
8-11	EOC Biology	FCAT 2.0 Reading	
11	EOC US History	FCAT 2.0 Reading	
11-12	SAT, ACT, Florida Postsecondary Education Readiness Test (PERT): Reading Components	PSAT Reading	

District Learning Gains and Achievement Models

Grade	Outcome	Model Type
4-11	FAA	Learning Gain
10-12	AICE, AP, IB, IC	Achievement

Q 2: What do you mean by the Outcome? Why are there negative numbers in that column?

A 2: It depends on the model that was used to create the outcome.

Florida VAM

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 the students' 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.

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 the students' prior achievement and certain demographic and academic 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 District, whereas negative values show by how much it fell below the expectation.

FAA Learning Gains Model

The Outcome refers to the percentage of students making learning gains. A learning gain can be made in one of the three ways: (a) increasing an achievement level from the prior year, (b) maintaining a level 1-3 and increasing the exam score by at least five points, or (c) maintaining a level 4-9. The percentages are shown as decimals.

Achievement Models based on AP, IB, and AICE Results

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.

Achievement Models based on the Industry Certification Examination Results

The Outcome represents the difference between the passing rate of a teacher's students on all such assessments combined and the average Districtwide passing rate. 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.

Q 3: What do you mean by the Standard Error?

A 3: Even teachers instructing demographically and academically similar students 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 4: What do you mean by the "VAM Ratio"?

A 4: 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 the 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 level approach, in which instead of adding and subtracting a multiple of the Standard Error to the Outcome, we used the ratios of the Outcome to its Standard Error 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.

Q 5: How were the points assigned?

A 5: We used the following assignment rules for each data source (grade level, subject area, etc.):

- If *VAM Ratio* < -2, assign 12.5 points,
- If $-2 \leq \text{VAM Ratio} < -1$, assign 25 points,

- If $-1 \leq \text{VAM Ratio} \leq 2$, assign 37.5 points,
- If $\text{VAM Ratio} > 2$, assign 50 points

In order to address the two extremes when assigning points, we used supplementary safeguards when using the data from AP, IB, AICE, Industry Certification, and FAA. If the passing rate (or the percentage of students making gains on FAA) was at least 5%, 25 points were assigned even if the calculations based on the rules above resulted in 12.5 points. At the other end of the spectrum, if the passing rate was at least 75% (or 95% for Spanish), 50 points were assigned even if the calculations based on the VAM Ratio rules resulted in a smaller number of points.

Q 6: My Summative Performance Evaluation (SPE) form shows 25.47 points for the Student Growth part of the evaluation, but the Web Report shows different points for different subjects and grade levels. Explain how you calculated the SPE result.

A 6: Let's consider an example. Suppose an elementary school teacher received the following points:

Grade	Subject	# Students	Points	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
4	Reading	19	12.5	
4	Mathematics	18	25.0	
5	Reading	21	25.0	
5	Mathematics	22	37.5	

$$(12.5 * 19 + 25 * 18 + 25 * 21 + 37.5 * 22) / (19 + 18 + 21 + 22) = 25.47.$$

Q 7: I taught in two different schools. Does that affect how my results are calculated and shown in the report?

A 7: 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, but the number of students may be different. We followed the same logic when calculating and reporting the results of the various District models.