



# RESEARCH BRIEF

## Research Services

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## Predicting Advanced Placement Examination Success from FCAT Scores

*Advanced Placement courses are offered at M-DCPS for students to acquire college credit or advanced college academic standing. A system has been developed in the past by the College Board to use the PSAT for 10th grade students to estimate their potential for AP Examination success. The same test has recently been applied in this district to 9th graders for the same purpose. In this paper we present an alternative, more reliable, prediction system using FCAT scores that is appropriate for the prediction of AP Examination success for both 9th and 10 graders. The prediction system should also prove useful for academic counseling and placement purposes.*

### Introduction

The Advanced Placement Program provides college-level courses for senior high school students. Students who successfully complete the Advanced Placement (AP) Examinations, developed by the College Board, are awarded college credit or advanced standing in over 2,000 participating colleges and universities. In recent years, over 25,000 AP Examinations have been administered annually in Miami-Dade County Public Schools (M-DCPS). AP Examination grades are reported on a scale from 1 (no recommendation) to 5 (extremely well qualified). Scores of 5, 4, and 3 are generally judged successful and are usually the criteria used by colleges and universities to grant credit and advanced standing.

Several studies have confirmed the validity of the AP Examination grades for their intended purpose. Specifically, students who were exempted from an introductory college course based on successful AP Examination performance were found to do as well or better in the subsequent level courses as those students who were not exempted from the introductory course (Adelman, 1999). Furthermore, research has found that the academic intensity and quality of a student's high school curriculum, based partly on the number of AP Examinations taken, are predictive of college level attainment (Bridgeman, Pollack, and Burton, 2004). As important is the national concern that too many unprepared students are entering AP courses which serves to water-down content, prompting annual AP course auditing by the College Board. It is not surprising, then, that there is an interest in identifying M-DCPS students who are likely to succeed in AP courses.

### Previous Prediction Using the PSAT

The Preliminary SAT (PSAT)/National Merit Scholarship Qualifying Test is a program cosponsored by the College Board and National Merit Scholarship Corporation. The PSAT measures critical reading skills, math problem-solving skills, and writing skills. The PSAT has traditionally been administered to all 10th

graders in M-DCPS and has recently been extended to 9th graders. It is intended to assess students' college study skills and help prepare them for the SAT test used in college admissions. In addition, the College Board has developed a system for using the PSAT as a predictor of AP Examination performance, referred to as "AP Potential," to help identify students who are likely to do well in AP courses.

The methodology for predicting AP Examination performance from the PSAT was first developed by Camara and Millsap (1998). They produced expectancy tables showing the percentage of test-takers earning a grade of 3 or better, as well as 4 or better, on AP Examinations across a range of PSAT scores. These expectancy tables were used as the foundation for AP Potential, an on-line tool sponsored by the College Board for identifying students likely to succeed in AP courses.

The relationship between PSAT scores and AP Examination grades was reexamined by the College Board by Ewing, Camara, and Millsap (2006). This study used updated tests, data, and course offerings to produce new expectancy tables. In addition to the published tables, the College Board provides an AP Potential web-based tool (<https://appotential.collegeboard.com>) that allows schools to generate rosters of students who are likely to score a 3 or better on a given AP Exam based on the input of PSAT scores.

## **Problems with Prediction from the PSAT**

The expectancy tables derived from the PSAT were all calculated from the scores of 10th grade students. Strictly speaking, these expectancy tables are valid only for the students upon whom they were based. In recent years, the PSAT has been administered to 9th grade students in our district. Administrators interested in counseling or placing students have turned to the 9th grade PSAT performance for predictive guidance. When trying to input 9th grade PSAT scores into the College Board AP Potential website, the following warning is presented in a pop-up window:

*While you may use AP Potential to generate rosters from 9th grade PSAT/NMSQT scores for courses leading up to AP, we encourage you to use additional indicators of success (e.g., grades in related course work, student interest/motivation, etc.) when making final course placement decisions.*

As common sense would suggest and as our research confirms, 9th graders perform significantly lower on the PSAT than do 10 graders. The probabilities of AP examination success purported in the expectancy tables provided by the College Board are not reliable for 9th grade students and, therefore, should be used with caution. When 9th grade PSAT scores are substituted into these expectancy tables, the predictions of success are underestimates to some intractable degree.

## **Purpose of Study**

To provide administrators with additional tools for projecting AP Examination success, new expectancy tables were created in this study using the FCAT SSS test scores as the predictive basis. The probabilities of AP Examination success were calculated separately for the 9th and 10th grade levels. Borrowing extensively from the Ewing, Camara, and Millsap (2006) paper as a guide for explanations and methodology, similar procedures were followed for the development of the expectancy tables.

## **Method**

This study examined students who completed AP Examinations in M-DCPS in 2007. Because small sample sizes can have a negative impact on reliability, AP Examinations with fewer than 600 students were eliminated from consideration. The average sample size of the courses not selected for this study was 182 students, while the average samples size for selected courses was 1534 students. Of the 38 types of AP Examinations provided by the district, 12 of the most populous examinations were examined in this study. These 12 courses account for approximately 80 percent of the students taking AP courses in M-DCPS.

The FCAT SSS Reading and Mathematics scores from 2004, 2005, and 2006 were considered in this study. Special care was taken to match the students taking the AP Examinations with their FCAT scores from the time in which they were 9th or 10th graders. In the earlier PSAT study, scores from the verbal, math, and writing tests were summed for each student for all possible combinations of the three tests to determine the composite score most closely associated with each AP Examination. Generally following that procedure and to facilitate the use of the expectancy tables, this study used the sum of the FCAT Reading and the FCAT Mathematics scores for each student as the source for the predictor variable, as well as the entry values for the expectancy tables.

It should be noted that the students included in this study are of somewhat higher ability than their entire high school cohort group. Only students who have taken AP courses and attempted AP Examinations were included in this analysis. Consequently, the relationships between the FCAT scores and AP Examination performance in the entire student body would have been considerably stronger than those uncovered here.

## Results

Table 1 shows the FCAT correlations and the n-counts for each of the AP Examinations considered in this study. Note that the correlations reflect the relationships of the sums of the FCAT Reading and FCAT Mathematics test scores for each student with the students' grades (1 through 5) in their AP Examinations. Almost all of these correlations are in the moderate to strong range and compare favorably with the correlations used in the PSAT-derived expectancy tables. The one exception, also an exception in the PSAT data, is with the Spanish Language AP Examination. Given the large proportion of M-DCPS students who may have Spanish as a first language or home language, it is not surprising that performance in this area is not strongly associated with academic achievement in general as reflected in the FCAT tests. The relationship between the Spanish AP grades and FCAT scores was deemed too weak to be reliably used to estimate probabilities of success and this test was not used in the subsequent construction of expectancy tables in this study.

**Table 1. Correlations of FCAT Scores with AP Examination Grades**

<b>Advanced Placement Course</b>	<b>9th Grade FCAT*</b>	<b>10th Grade FCAT*</b>	<b>Number of Exams 2007</b>
United States History	0.53	0.54	2126
Biology	0.60	0.59	934
Economics: Macroeconomics	0.52	0.54	1209
English: Language & Composition	0.58	0.60	2956
English: Literature & Composition	0.55	0.59	2681
Environmental Science	0.55	0.58	1075
Human Geography	0.53	0.60	646
Government & Politics: United States	0.57	0.61	2102
Calculus AB	0.44	0.50	1125
Psychology	0.57	0.58	1417
Spanish Language	0.21	0.23	1415
Statistics	0.55	0.59	724

\* The sum of FCAT Reading and FCAT Mathematics scores

For the remaining 11 moderate- to high-volume AP Examinations, a series of binary logistic regression analyses was conducted. This type of statistical technique is useful for situations in which the researcher wants to be able to predict the probability of success of an outcome based on the values of a predictor variable. It is similar to a linear regression model, but is suited to models where the dependent variable is dichotomous. Logistic regression coefficients can be used to estimate the natural logarithm of the odds ratios for the independent variable in the model. It is relatively easy to convert these log-odds to estimates of the probabilities of success by appropriate exponentiation procedures.

Although the particular statistical techniques employed in this analysis may seem somewhat esoteric to some, the results are very easy to interpret. For every input value (for example, the sum of the FCAT Reading and FCAT Mathematics scores for a given 9th grader) there is an estimated probability of success (that is, a grade of 3 or higher on the AP Examination). Using the results of these analyses, expectancy tables were computed for each of the 11 AP Examinations under consideration. These expectancy tables show the probability of test-takers earning a 3 or better, and a 4 or better, on AP Examinations across a range of combined FCAT scores from both 9th and 10th grade data. These expectancy tables are presented in full in the attachment to this paper.

## Using the Expectancy Tables

The expectancy tables computed in this study were designed to assist administrators, students, and parents in identifying the potential for student success in AP courses based on FCAT performance. In using these tables for academic counseling, one would generally first select the appropriate AP Examination, choose the criteria for success (a grade of 3 or higher, or a grade of 4 or higher), and then select an appropriate target success rate. Although a reasonable starting point may be to select the probability level that is closest to 50 percent for earning an AP Examination grade of 3 or better, individuals may wish to adjust the level up or down to suit their specific needs.

To better understand how to use the expectancy tables, consider the reproduction in Table 2 of the expectancy table for AP English Literature and Composition.

**Table 2. Expectancy Table for AP English Literature & Composition**

<b>English: Literature &amp; Composition</b>					
9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	8.6%	2.2%	600-624	3.4%	0.6%
625-649	13.5%	3.3%	625-649	6.5%	1.1%
650-674	20.6%	4.7%	650-674	12.2%	2.0%
675-699	30.1%	6.8%	675-699	21.6%	3.7%
700-724	41.6%	9.6%	700-724	35.4%	6.7%
725-749	54.2%	13.5%	725-749	52.1%	11.9%
750-774	66.2%	18.7%	750-774	68.4%	20.2%
775-799	76.5%	25.2%	775-799	81.2%	32.3%
800-824	84.4%	33.1%	800-824	89.5%	47.4%
825-849	89.9%	42.1%	825-849	94.4%	62.9%
850-874	93.7%	51.6%	850-874	97.1%	76.1%
875-899	96.1%	61.0%	875-899	98.5%	85.7%
900-924	97.6%	69.7%	900-924	99.3%	91.9%
925-949	98.5%	77.2%	925-949	99.6%	95.5%
950-974	99.1%	83.2%	950-974	99.8%	97.6%
975-999	99.5%	87.9%	975-999	99.9%	98.7%

For purposes of illustrations, two hypothetical situations, using 9th graders and 10th graders, will be considered. Imagine a student earned a score of 360 on the 9th grade FCAT in Mathematics and a 424 on the 9th grade FCAT in Reading. Adding these two FCAT scores together, we get 784 as the data entry point under the heading of 9th Grade FCAT. This composite score falls in the range 775-799, indicating that this student is estimated to have a 76.5% probability of getting a 3 or better, and a 25.2% probability of getting a 4 or better on the English Literature AP Examination.

As a further example, imagine that as a counselor, you have decided to advise any 10th grade students to enter the English Literature AP course if their estimated probability of getting a 3 or better is greater than 50 percent. Using the right side of the table, we can see that students with combined FCAT scores of 725 or greater will have an estimated probability of success of at least 52.1 percent, and we can use this FCAT score as a starting point for advising. Paraphrasing the caveat in the Ewing, Camara, and Millsap (2006) paper, it is important to understand that not every student with a combined FCAT score above 725 will necessarily achieve a grade of 3 or better on the AP English Literature Examination. Similarly, the table does not mean that all students with combined FCAT scores below 725 will earn grades of 1 or 2. The expectancy tables provide probabilities that describe the likely outcome on each AP Examination given performance on the FCAT exams.

## Conclusions

This paper presents expectancy tables for the most popular M-DCPS AP Examinations based on FCAT scores from both 9th and 10 grade levels. Because the tables for 9th grade were based on actual 9th grade data, they should be more reliable predictors of AP Examination success. In addition, it is anticipated that listings of all students with an estimated success probability of greater than 50% for each AP Examination will be provided to the appropriate M-DCPS high schools. It is hoped that these tables can be used by administrators, students, and parents in considering the potential success of students in AP courses.

Although these tables should provide a useful tool for administrators, they should not be relied upon alone to determine placement in AP courses. Many factors, including student interest, previous academic performance, and teacher recommendations should always be considered in making such placement decisions. Beyond this, many students will succeed in rigorous advanced courses based on factors that cannot be measured by tests, grades, or past performance. Every opportunity should be provided to students by proper preparation for success in advanced courses.

## References

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- College Board. (2005) *AP Potential: A Tool for Finding Additional AP Students*. from <https://appotential.collegeboard.com/welcome.do>.
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Attachment

AP POTENTIAL EXPECTANCY TABLES

## Expectancy Tables

### ***Biology***

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	2.8%	1.0%	600-624	1.2%	0.4%
625-649	4.8%	1.7%	625-649	2.3%	0.8%
650-674	8.1%	3.0%	650-674	4.5%	1.6%
675-699	13.3%	5.1%	675-699	8.6%	3.2%
700-724	21.2%	8.7%	700-724	15.7%	6.3%
725-749	31.9%	14.3%	725-749	27.0%	11.8%
750-774	45.1%	22.8%	750-774	42.3%	21.0%
775-799	58.9%	34.1%	775-799	59.3%	34.7%
800-824	71.5%	47.7%	800-824	74.3%	51.5%
825-849	81.5%	61.6%	825-849	85.2%	68.0%
850-874	88.5%	73.9%	850-874	91.9%	80.9%
875-899	93.1%	83.3%	875-899	95.8%	89.4%
900-924	95.9%	89.7%	900-924	97.8%	94.4%
925-949	97.6%	93.9%	925-949	98.9%	97.1%
950-974	98.6%	96.4%	950-974	99.4%	98.5%
975-999	99.2%	97.9%	975-999	99.7%	99.3%

### ***Calculus AB***

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	10.2%	4.2%	600-624	4.2%	1.5%
625-649	13.8%	5.8%	625-649	6.8%	2.4%
650-674	18.3%	8.0%	650-674	10.8%	4.0%
675-699	23.9%	10.9%	675-699	16.7%	6.7%
700-724	30.5%	14.6%	700-724	25.0%	10.8%
725-749	38.1%	19.5%	725-749	35.6%	16.9%
750-774	46.4%	25.4%	750-774	47.8%	25.7%
775-799	54.8%	32.4%	775-799	60.3%	36.9%
800-824	63.0%	40.3%	800-824	71.6%	49.7%
825-849	70.4%	48.8%	825-849	80.7%	62.6%
850-874	77.0%	57.3%	850-874	87.4%	73.9%
875-899	82.4%	65.4%	875-899	92.0%	82.7%
900-924	86.8%	72.7%	900-924	95.0%	89.0%
925-949	90.2%	79.0%	925-949	96.9%	93.2%
950-974	92.8%	84.1%	950-974	98.1%	95.9%
975-999	94.8%	88.2%	975-999	98.9%	97.5%

### ***Economics: Macroeconomics***

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	5.7%	2.5%	600-624	2.2%	0.6%
625-649	8.5%	3.8%	625-649	4.0%	1.2%
650-674	12.4%	5.9%	650-674	7.0%	2.3%
675-699	17.8%	8.9%	675-699	12.0%	4.6%
700-724	24.8%	13.4%	700-724	19.9%	9.0%
725-749	33.6%	19.5%	725-749	31.1%	16.8%
750-774	43.6%	27.6%	750-774	45.1%	29.2%
775-799	54.1%	37.5%	775-799	59.9%	45.6%
800-824	64.3%	48.5%	800-824	73.1%	63.1%
825-849	73.4%	59.7%	825-849	83.2%	77.7%
850-874	80.8%	70.0%	850-874	90.0%	87.6%
875-899	86.6%	78.5%	875-899	94.2%	93.5%
900-924	90.8%	85.2%	900-924	96.8%	96.7%
925-949	93.8%	90.1%	925-949	98.2%	98.4%
950-974	95.8%	93.4%	950-974	99.0%	99.2%
975-999	97.2%	95.7%	975-999	99.4%	99.6%

### ***English: Language & Composition***

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	6.9%	1.1%	600-624	3.0%	0.4%
625-649	11.3%	1.8%	625-649	5.8%	0.7%
650-674	17.9%	2.9%	650-674	10.9%	1.4%
675-699	27.3%	4.7%	675-699	19.5%	2.7%
700-724	39.2%	7.7%	700-724	32.4%	5.2%
725-749	52.6%	12.2%	725-749	48.7%	9.8%
750-774	65.6%	18.8%	750-774	65.3%	17.8%
775-799	76.6%	27.8%	775-799	78.9%	30.0%
800-824	84.9%	39.2%	800-824	88.1%	45.9%
825-849	90.6%	51.8%	825-849	93.6%	62.8%
850-874	94.3%	64.2%	850-874	96.7%	77.0%
875-899	96.6%	75.0%	875-899	98.3%	86.9%
900-924	98.0%	83.3%	900-924	99.1%	92.9%
925-949	98.8%	89.3%	925-949	99.6%	96.3%
950-974	99.3%	93.3%	950-974	99.8%	98.1%
975-999	99.6%	95.9%	975-999	99.9%	99.0%

\* The sum of the student's FCAT Reading and FCAT Mathematics SSS scores

### English: Literature & Composition

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	8.6%	2.2%	600-624	3.4%	0.6%
625-649	13.5%	3.3%	625-649	6.5%	1.1%
650-674	20.6%	4.7%	650-674	12.2%	2.0%
675-699	30.1%	6.8%	675-699	21.6%	3.7%
700-724	41.6%	9.6%	700-724	35.4%	6.7%
725-749	54.2%	13.5%	725-749	52.1%	11.9%
750-774	66.2%	18.7%	750-774	68.4%	20.2%
775-799	76.5%	25.2%	775-799	81.2%	32.3%
800-824	84.4%	33.1%	800-824	89.5%	47.4%
825-849	89.9%	42.1%	825-849	94.4%	62.9%
850-874	93.7%	51.6%	850-874	97.1%	76.1%
875-899	96.1%	61.0%	875-899	98.5%	85.7%
900-924	97.6%	69.7%	900-924	99.3%	91.9%
925-949	98.5%	77.2%	925-949	99.6%	95.5%
950-974	99.1%	83.2%	950-974	99.8%	97.6%
975-999	99.5%	87.9%	975-999	99.9%	98.7%

### Environmental Science

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	4.3%	2.1%	600-624	1.3%	0.7%
625-649	7.0%	3.4%	625-649	2.7%	1.4%
650-674	11.2%	5.5%	650-674	5.5%	2.7%
675-699	17.4%	8.8%	675-699	10.8%	5.4%
700-724	26.1%	13.8%	700-724	20.4%	10.5%
725-749	37.2%	21.0%	725-749	35.1%	19.2%
750-774	49.8%	30.7%	750-774	53.2%	32.6%
775-799	62.5%	42.4%	775-799	70.6%	49.5%
800-824	73.6%	55.0%	800-824	83.5%	66.6%
825-849	82.4%	67.0%	825-849	91.4%	80.2%
850-874	88.7%	77.2%	850-874	95.7%	89.2%
875-899	92.9%	84.9%	875-899	97.9%	94.4%
900-924	95.7%	90.3%	900-924	99.0%	97.2%
925-949	97.4%	93.9%	925-949	99.5%	98.6%
950-974	98.4%	96.3%	950-974	99.8%	99.3%
975-999	99.0%	97.7%	975-999	99.9%	99.7%

### Government & Politics: United States

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	3.8%	1.6%	600-624	1.1%	0.3%
625-649	6.0%	2.4%	625-649	2.2%	0.6%
650-674	9.4%	3.5%	650-674	4.4%	1.2%
675-699	14.4%	5.1%	675-699	8.5%	2.3%
700-724	21.5%	7.4%	700-724	16.0%	4.5%
725-749	30.8%	10.6%	725-749	28.0%	8.5%
750-774	41.9%	15.0%	750-774	44.3%	15.4%
775-799	53.9%	20.7%	775-799	61.9%	26.3%
800-824	65.5%	28.0%	800-824	76.9%	41.3%
825-849	75.5%	36.7%	825-849	87.2%	58.0%
850-874	83.3%	46.3%	850-874	93.3%	73.1%
875-899	89.0%	56.1%	875-899	96.6%	84.2%
900-924	92.9%	65.6%	900-924	98.3%	91.3%
925-949	95.5%	73.9%	925-949	99.2%	95.4%
950-974	97.2%	80.8%	950-974	99.6%	97.6%
975-999	98.2%	86.2%	975-999	99.8%	98.8%

### Human Geography

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	9.0%	2.7%	600-624	2.7%	0.7%
625-649	13.9%	4.3%	625-649	5.4%	1.5%
650-674	20.8%	6.6%	650-674	10.6%	2.8%
675-699	29.9%	10.2%	675-699	19.7%	5.5%
700-724	41.0%	15.2%	700-724	33.6%	10.2%
725-749	53.0%	22.2%	725-749	51.2%	18.4%
750-774	64.7%	31.1%	750-774	68.5%	30.7%
775-799	74.9%	41.8%	775-799	81.8%	46.7%
800-824	82.9%	53.3%	800-824	90.3%	63.3%
825-849	88.7%	64.4%	825-849	95.1%	77.3%
850-874	92.7%	74.2%	850-874	97.6%	87.1%
875-899	95.4%	82.0%	875-899	98.8%	93.0%
900-924	97.1%	87.9%	900-924	99.4%	96.3%
925-949	98.2%	92.0%	925-949	99.7%	98.1%
950-974	98.9%	94.8%	950-974	99.9%	99.0%
975-999	99.3%	96.7%	975-999	99.9%	99.5%

\* The sum of the student's FCAT Reading and FCAT Mathematics SSS scores



## Psychology

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	12.0%	5.8%	600-624	6.3%	2.7%
625-649	18.4%	8.7%	625-649	11.3%	4.7%
650-674	27.0%	12.8%	650-674	19.3%	8.2%
675-699	37.9%	18.5%	675-699	31.0%	13.8%
700-724	50.1%	26.0%	700-724	45.8%	22.5%
725-749	62.3%	35.1%	725-749	61.4%	34.3%
750-774	73.1%	45.5%	750-774	75.0%	48.6%
775-799	81.8%	56.3%	775-799	84.9%	63.0%
800-824	88.1%	66.5%	800-824	91.4%	75.5%
825-849	92.4%	75.4%	825-849	95.2%	84.8%
850-874	95.2%	82.6%	850-874	97.4%	90.9%
875-899	97.1%	88.0%	875-899	98.6%	94.8%
900-924	98.2%	91.9%	900-924	99.3%	97.0%
925-949	98.9%	94.6%	925-949	99.6%	98.3%
950-974	99.3%	96.4%	950-974	99.8%	99.1%
975-999	99.6%	97.6%	975-999	99.9%	99.5%

## Statistics

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	4.8%	1.3%	600-624	1.3%	0.1%
625-649	7.3%	2.0%	625-649	2.6%	0.3%
650-674	10.9%	3.0%	650-674	5.0%	0.6%
675-699	16.1%	4.7%	675-699	9.4%	1.4%
700-724	23.0%	7.1%	700-724	16.9%	3.1%
725-749	31.8%	10.7%	725-749	28.6%	6.9%
750-774	42.2%	15.7%	750-774	44.1%	14.8%
775-799	53.2%	22.5%	775-799	60.9%	28.8%
800-824	64.0%	31.1%	800-824	75.4%	48.5%
825-849	73.5%	41.3%	825-849	85.8%	68.7%
850-874	81.2%	52.4%	850-874	92.3%	83.6%
875-899	87.1%	63.2%	875-899	95.9%	92.2%
900-924	91.3%	72.8%	900-924	97.9%	96.5%
925-949	94.3%	80.6%	925-949	98.9%	98.5%
950-974	96.2%	86.7%	950-974	99.4%	99.3%
975-999	97.6%	91.0%	975-999	99.7%	99.7%

## United States History

9th Grade FCAT*	AP Grade		10th Grade FCAT*	AP Grade	
	3 or higher	4 or higher		3 or higher	4 or higher
600-624	5.8%	1.4%	600-624	3.1%	0.8%
625-649	8.7%	2.2%	625-649	5.2%	1.4%
650-674	12.8%	3.6%	650-674	8.6%	2.5%
675-699	18.5%	5.6%	675-699	13.9%	4.3%
700-724	26.0%	8.8%	700-724	21.7%	7.3%
725-749	35.2%	13.5%	725-749	32.2%	12.2%
750-774	45.7%	20.1%	750-774	45.0%	19.8%
775-799	56.5%	28.8%	775-799	58.4%	30.3%
800-824	66.7%	39.5%	800-824	70.7%	43.5%
825-849	75.6%	51.3%	825-849	80.5%	57.7%
850-874	82.7%	63.0%	850-874	87.7%	70.7%
875-899	88.1%	73.3%	875-899	92.4%	81.0%
900-924	92.0%	81.6%	900-924	95.4%	88.3%
925-949	94.6%	87.7%	925-949	97.3%	93.0%
950-974	96.5%	92.0%	950-974	98.4%	95.9%
975-999	97.7%	94.9%	975-999	99.1%	97.7%

\* The sum of the student's FCAT Reading and FCAT Mathematics SSS scores