Wilson Consulting Services, LLC

Profile of the South Carolina Student

Horry and Georgetown Counties Public Schools

February 28, 2018

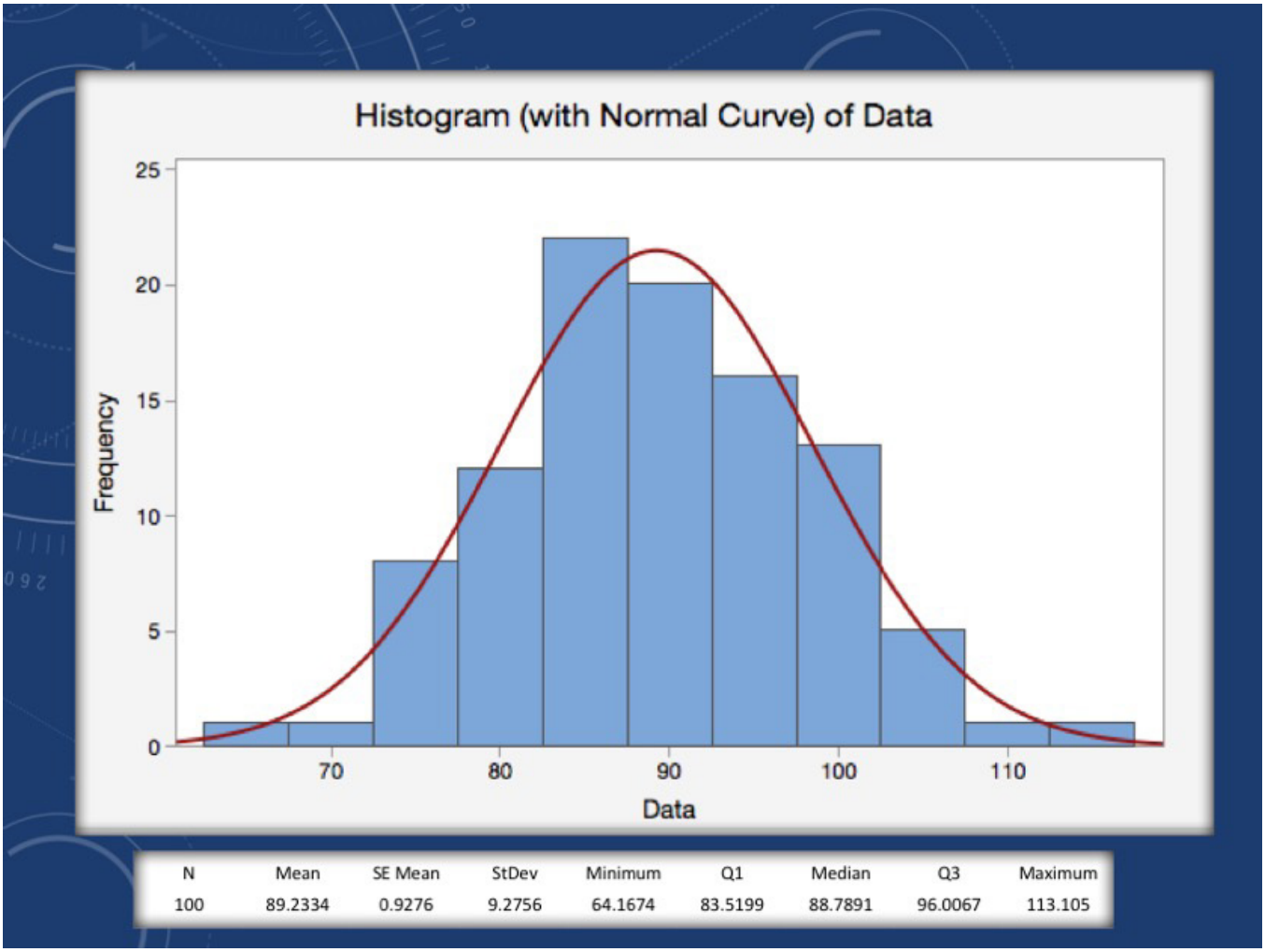
David C. Wilson, MSEE

Founder/CEO

wilsonconsultingservices.net

It must be demonstrated...

We are proponents and advocates of literacy in STEM and statistics in a technological and data-driven world.



N	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
100	89.2334	0.9276	9.2756	64.1674	83.5199	88.7891	96.0067	113.105

STEM = ∑(Science, Technology, Engineering, Mathematics)

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Location of report:
https//www.wilsonconsultingservices.net/wcs_profile_sc_18.pdf

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dave@wilsonconsultingservices.net

Dedication

This report is dedicated to the loving and memory of my late parents: Mr. Willie Wilson Sr. and Mrs. Rosa Carr-Wilson. Your courage, heroic efforts, and faith during a very challenging period in American history and your gallant determination to ensure that my siblings and I stayed in school will always be appreciated and remembered. Although you never went beyond third grade in your formal education—and ultimately never had—the opportunity to achieve your full potential, you, nevertheless, stayed on the high road of faith, positive thought, and love until the end.*

Acknowledgment

This paper is based on data collected from the US Department of Education (National Center for Education Statistics), ACT Inc., and the South Carolina Department of Education, the Horry County School District, and the Georgetown County School District.

I would like to thank all the people from these agencies whom I had the pleasure of speaking to directly. Also, I would also like to extend a special thank-you to the many people at ACT Inc. and the South Carolina Department of Education for your valuable assistance in providing me with additional data and helping me interpret some key metrics of the vast volume of data that required analysis to generate this report. I am also grateful to my wife, Beverly, for her encouragement and giving me the uninterrupted time to complete this project.

*Father attended school in Horry County and mother attended school in Georgetown County, both in the 1920s. Their schooling took place in the community church.

Author

The author:

As a native South Carolinian, I sometimes think of when I was a student attending public school in Horry County in the sixties. County schools were segregated by race, resources were scarce, no mathematics offering beyond tenth grade in my school, and technology in public schools were nonexistent. Today when I visit a PK-12 county school classroom, I am overwhelmed by the learning resources, including technology, that are available to students and teachers alike.

I spent my entire professional career, starting with the army signal corps, in the technical field, which is known today as science, technology, engineering, and mathematics (STEM). Consequently, I am convinced that technology is nothing more than a productivity tool. In my professional opinion, productivity means getting more output with less input. To that end, students still need character, perseverance, collaborative skills, critical thinking skills, and so on. For example, technology allows faster access to information; however, once a student locates the information, he or she needs the same reading skills to interpret and extrapolate key points from the passage as would have been needed 50 years ago with an old book with the cover falling off and torn pages.

The idea is that improving the benchmark performance profiled in this paper will require the same student skill sets and parental involvement that were needed more than 50 years ago, which cannot be replaced with technology. South Carolina and district report cards show some of the same parameters as this paper; however, this paper created additional profiles, including demographics of teachers, student enrollment, benchmarks, and graduation rates, including individual schools, for the Horry and Georgetown Counties public schools. These profiles will enable the reader to formulate a broader and more informative picture of South Carolina, and the Horry County Schools, and the Georgetown County School District.

To be successful in improving the benchmark performance profiled in this paper, it is recommended that all stakeholders approach this effort from a cause-and-effect analytical framework. Realizing improvement in any situation will not be effective by simply tinkering with the effect (outcome); rather, causation (input) must be taken seriously and the problems identified, followed by the implementation of sound solutions with lasting effects.

Sincerely,

David C. Wilson, MSEE
CEO/Author

David C. Wilson, MSEE

David C. Wilson is an electrical engineer and adjunct professor—now retired. He is a consultant, statistical practitioner, family history researcher, author, and self-publisher.

Wilson is a graduate of the former Chestnut Consolidated High School (Horry County, SC) and an army veteran. He earned his bachelor's and master's degrees in electrical engineering from the City College of New York and Manhattan College, respectively.

Wilson has worked in the engineering areas of product development, quality, and reliability for more than 35 years with multinational corporations such as IBM, General Electric, and Honeywell.

During his 25+ years as an adjunct professor, he taught engineering, mathematics, and statistics at Dutchess Community College (NY), Quinnipiac University (CT), and Horry Georgetown Technical College (SC). Additionally, he served one year with the prestigious IBM Faculty Loan Program.

He and his wife, Beverly, have two adult sons and six grandchildren. They reside in Conway, South Carolina.

Executive Summary

This report examines the 2017 benchmarks for college and career readiness relative to accountability measurements for South Carolina (SC), Horry County Schools (HCS), and the Georgetown County School District (GCSD). In addition, the report profiles the benchmark performance for public school students relative to student demographics. The demographics that were examined are White, Black, Hispanic/Latino, Asian, Two or More Races, and Other (Native Hawaiian or Other Pacific Islanders, American Indian (Native American), or Alaska Native). The report contains a graphical profile along with comments about the benchmark measurements that are shown in each graph. The outcomes of the assessments shown in this report highlight the need to further examine ways to improve the percentage of college and career readiness for all students, especially Black and Hispanic students. This will require a stronger relationship among parents, students, teachers, administrators, community leaders, and others who need to become passionate stakeholders in the process of educating children.

Although there are stellar students among the many, the measurement results presented in this paper suggest that much improvement is warranted and required to be more competitive in an increasingly technological, informational, diverse, and global economy.

Key findings for 2017:

- SCPASS and SCREADY for SC, HCS, and GCSD average percentages for science, mathematics, and English language arts meeting or exceeding benchmark were 43%, 51%, and 38%, respectively.
- EOCEP (high school students) for SC, HCS, and GCSD percentages earning a “C” or higher were 52%, 60%, and 44%, respectively.
- EOCEP (middle school students) for HCS and GCSD percentages earning a “C” or higher were 87% and 70%, respectively.
- ACT eleventh graders demonstrating readiness for college in SC, HCS, and GCSD were 33%, 34%, and 25%, respectively.
- ACT graduating seniors demonstrating readiness for college in SC, HCS, and GCSD were 36%, 42%, and 26%, respectively.
- Graduating seniors who met benchmarks in all four areas of the ACT test in the US, SC, HCS, and GCSD were 27%, 15%, 15%, and 8%, respectively.
- Academy for the Arts, Science, and Technology (AAST) graduating seniors earned the highest composite ACT score of 24.1 high schools in HCS and GCSD. The school ranked number four out of 240 schools in ACT composite score attainment in South Carolina.
- GCSD attained the highest graduation rate (90.3%) in South Carolina and ranks among the top 25% of high school graduation rates in the nation.
- HCS Early College High School attained a graduation rate of 100%.
- This paper found no statistical evidence that the glitch during the administration of the 2017 ACT test negatively affected the outcome.

1. Introduction

The information included was sourced primarily from the South Carolina Department of Education and ACT Inc. Approximately 97% of students in public schools in South Carolina and the Horry and Georgetown counties public schools are White, Black, and Hispanic. Others make up approximately 3%. Although these groups are included in the profile, their combined percentage is so small that in some cases throughout the paper, they are combined under "Other," and in other situations, they are shown as individual groups, depending on the percentages.

This report highlights some of the same summaries contained in previously published report cards of public school student performance in South Carolina, Horry County Schools, and the Georgetown County School District. Moreover, this report took a binary approach in the sense that a benchmark was met or not met. Also, there might be some variation in percentages because of rounding, or in some cases, where applicable, percentages might not add up to exactly 100%. Additionally, there might be some differences between some reports by various groups because of the use of different databases. However, these variations do not change the data patterns and/or outcomes.

Consequently, the purpose of this report is to share a profile of South Carolina (SC), Horry County Schools (HCS),[1] and the Georgetown County School District (GCSD).[2] In the interest of space on a given page, the full name of the state and the two school districts and the cited acronyms will be used interchangeably throughout this paper.

The intended primary audience groups are parents, teachers, administrators, community leaders, and others who are interested in educating children.

The paper provides selected metrics on the percentage of teachers, student enrollment, performance benchmarks,[3] and graduation rates for South Carolina, Horry County Schools, and the Georgetown County School District. The profiling includes elementary, middle, and high schools where applicable.

The analysis and graphs in this report are based on data from State Assessments from the South Carolina Department of Education.[4] The benchmark results included in this report are the South Carolina Palmetto Assessment of State Standards (SCPASS), South Carolina College-and-Career Ready Assessments (SC READY), End-of-Course Examination Program (EOCEP), and ACT®. The benchmarks profiled in this paper are shown in the order as listed in this paragraph. In addition, teacher demographics, student enrollment distribution, and graduation rates are included in this paper.

The SCPASS (Tests: Science and Social Studies) and SC READY (Tests: English and Mathematics) are statewide assessments administered to students in grades four through eight and three through eight, respectively.

The EOCEP provides tests in high school core courses, including courses taken in middle school for high school credit. The EOCEP tests in the following subject areas: [a] Algebra 1, [b] Biology 1, [c] English 1, and [d] US History and the Constitution.

ACT Inc.[5] (ACT®)[6] is a nonprofit organization that assesses readiness for college and career.

[1]Horry County Schools and HCS will be used interchangeably in this report when necessary.
[2]Georgetown County School District and GCSD will be used interchangeably in this report when necessary.
[3]*Merriam-Webster*—something that serves as a standard by which others may be measured or judged
[4]Exception to those students who qualify for the South Carolina Alternate Assessment (SC-Alt)
[5]Originally, an abbreviation of American College Testing, Inc. (ACT).
[6]The acronym (ACT) is a registered trade mark of ACT®

1. Introduction, cont'd

Starting in 2016, South Carolina required all seniors and eleventh-graders to take the ACT test. There is no cost to the student. In addition, ACT tests are used for state and federal accountability. The examination consists of four multiple-choice tests on English, mathematics, reading, and science, plus a writing test. The profiles in this report do not include the writing assessment. This paper includes an extensive profile of measurements of ACT 2017 test results for eleventh graders.

The profile for each test does not break down the levels of performance; rather, the profile reflects the percentage of students meeting or exceeding the minimum assessment benchmark. The phrase “met or exceeded” is not separated from meeting or exemplary; rather, it refers to any performance that met or went above the minimum to meet standards. These designations of performance metrics are used for elementary and middle school results. In some cases, the percent calculation of performance for each group is based on that group’s population, which is the proportion within its own subpopulation. The report examines the benchmarks of student demographics: White, Black, Hispanic/Latino, Asian, Two or More Races, and Other (Native Hawaiian or Other Pacific Islanders, American Indian, or Alaskan Native). However, when the percentage is very small, Asians and Two Races are included in "Other." The total number of students tested in each assessment test (SCPASS and SCREADY) ranges from forty-eight to fifty-eight thousand at the state level and two to thirty-one hundred at the district level. It is not necessary to read the sections in sequence, because each one was created to stand alone for the reader.

Although the focus of the report is on school year assessments for 2017, it provides some comparative analysis from previous years.

2.1 Comparison of General and Student Populations by Demographics

This graph (Figure 2.1) draws a percentage comparison among the national, South Carolina, Horry County Schools, and Georgetown School District populations.

Figure 2.1: Comparison of general and school populations by demographics

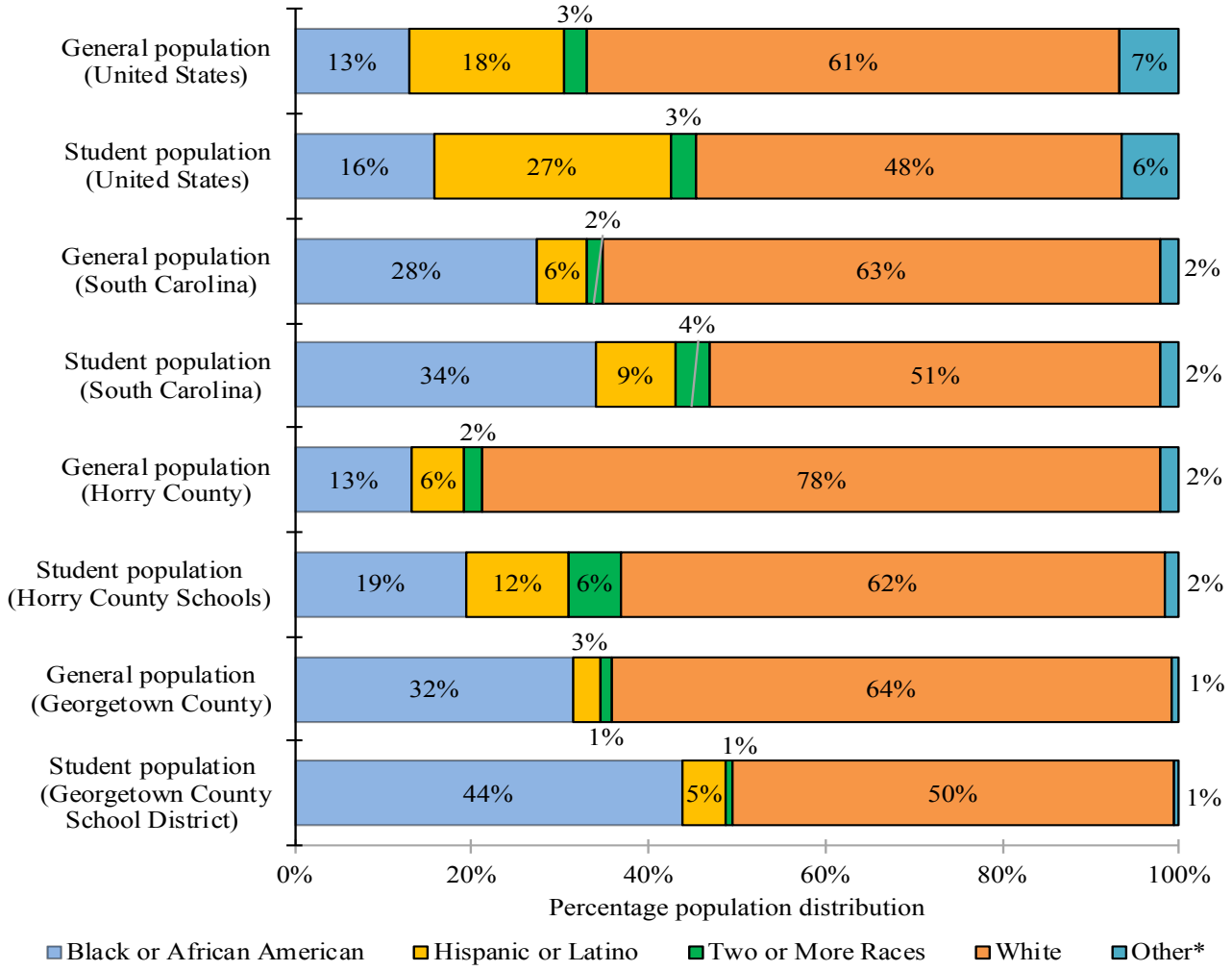


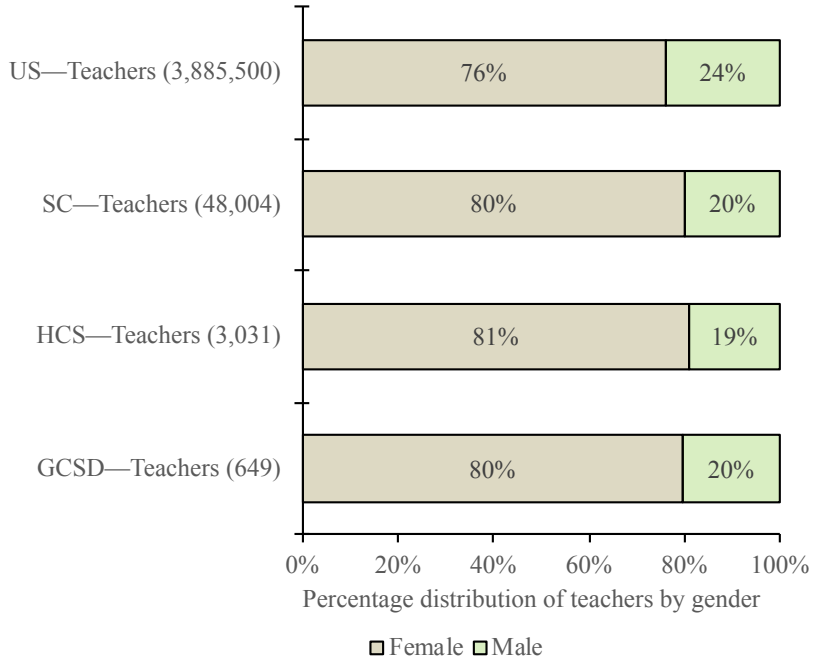
Table 2.1: Populations†

Description	Number	Description	Number
General population (United States)	323,127,513	General population (Horry County)	322,342
Student population (United States)	50,700,000	Student population (Horry County Schools)	44,032
General population (South Carolina)	4,961,119	General population (Georgetown County)	61,399
Student population (South Carolina)	771,756	Student population, (Georgetown County School District	9,540

†Numbers may vary slightly between federal and state databases because all populations are a continuous distribution. However, the slight variation in raw count will not change the percent distribution nor pattern.
*Includes Asian, American Indian, Alaskan Native, and Pacific Islanders or Other Native Hawaiian.

3.1 Comparative Distributions of Teacher Population

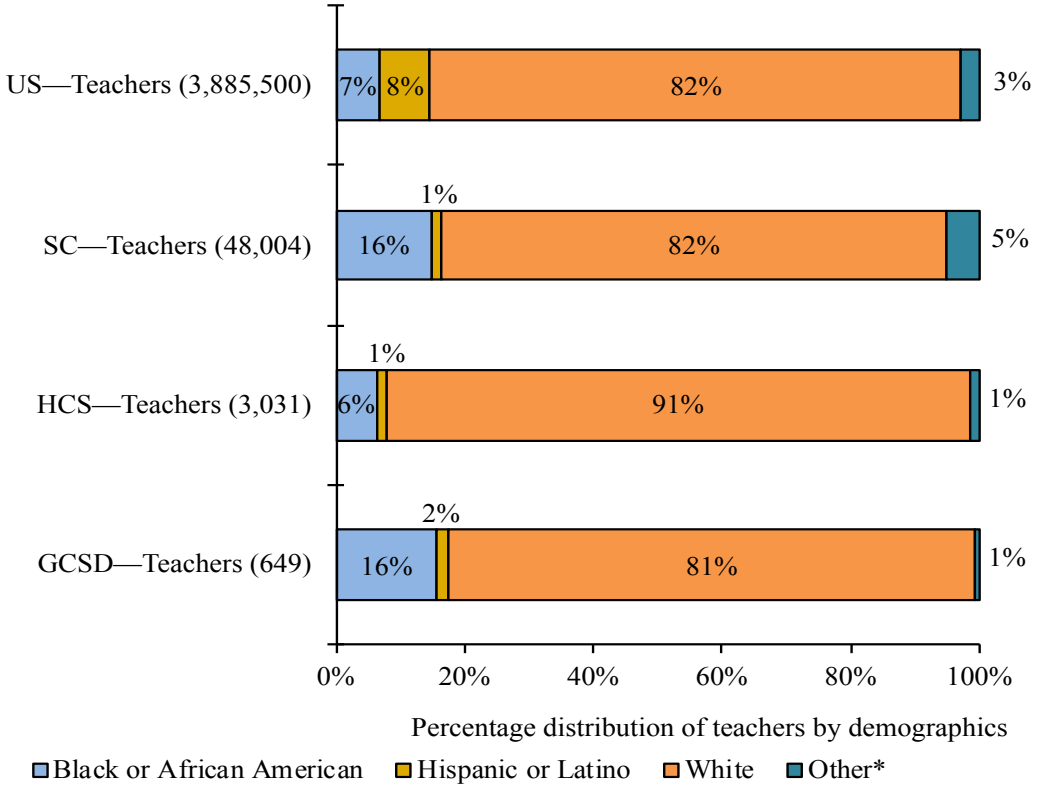
Figure 3.1: Number and percentage distribution of teachers by gender



The graph (Figure 3.1) shows the distribution of teachers by gender: United States, South Carolina, Horry County Schools, and Georgetown County School District.

Figure 3.2: Number and percentage distribution by teacher demographics

Figure 3.2 compares the percentage distribution of teachers by the demographics of race/ethnicity at the national, state, and local district levels.



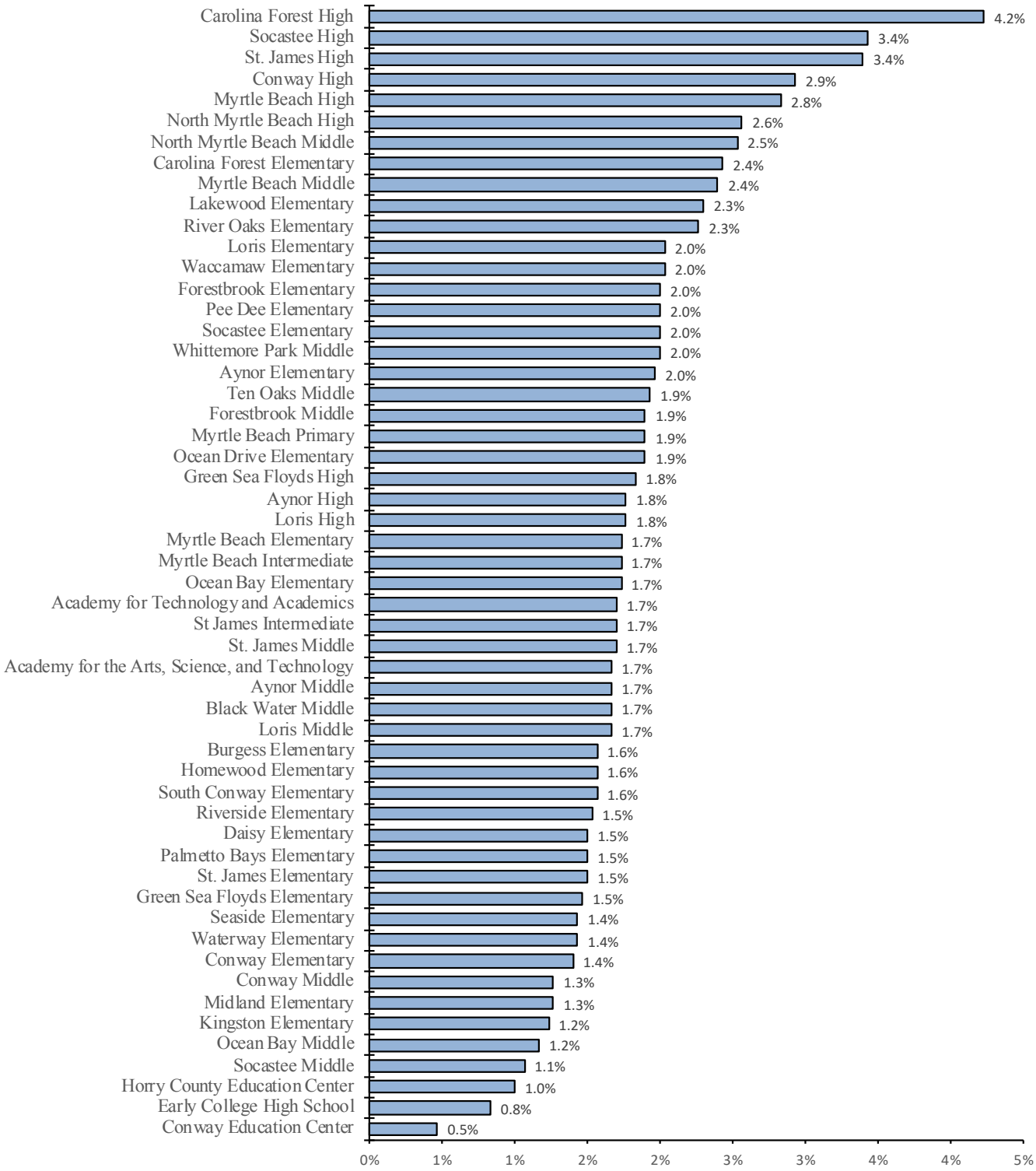
Source: South Carolina Department of Education

*Native American, Native Alaskan, Asian, Pacific Islanders, and NSPEC

3.2 HCS: Percentage Distribution of Teachers by School

The graph (Figure 3.3) profiles the percentage distribution of teachers in Horry County Schools. These schools serve approximate;y 44,000 students with about 3,000 classroom teachers on the basis of schools listed in the graph below. The percentages in the graph below shows each school's share of teachers from the total pool.

Figure 3.3: Percentage share of HCS teachers in each school (n = 3,036)



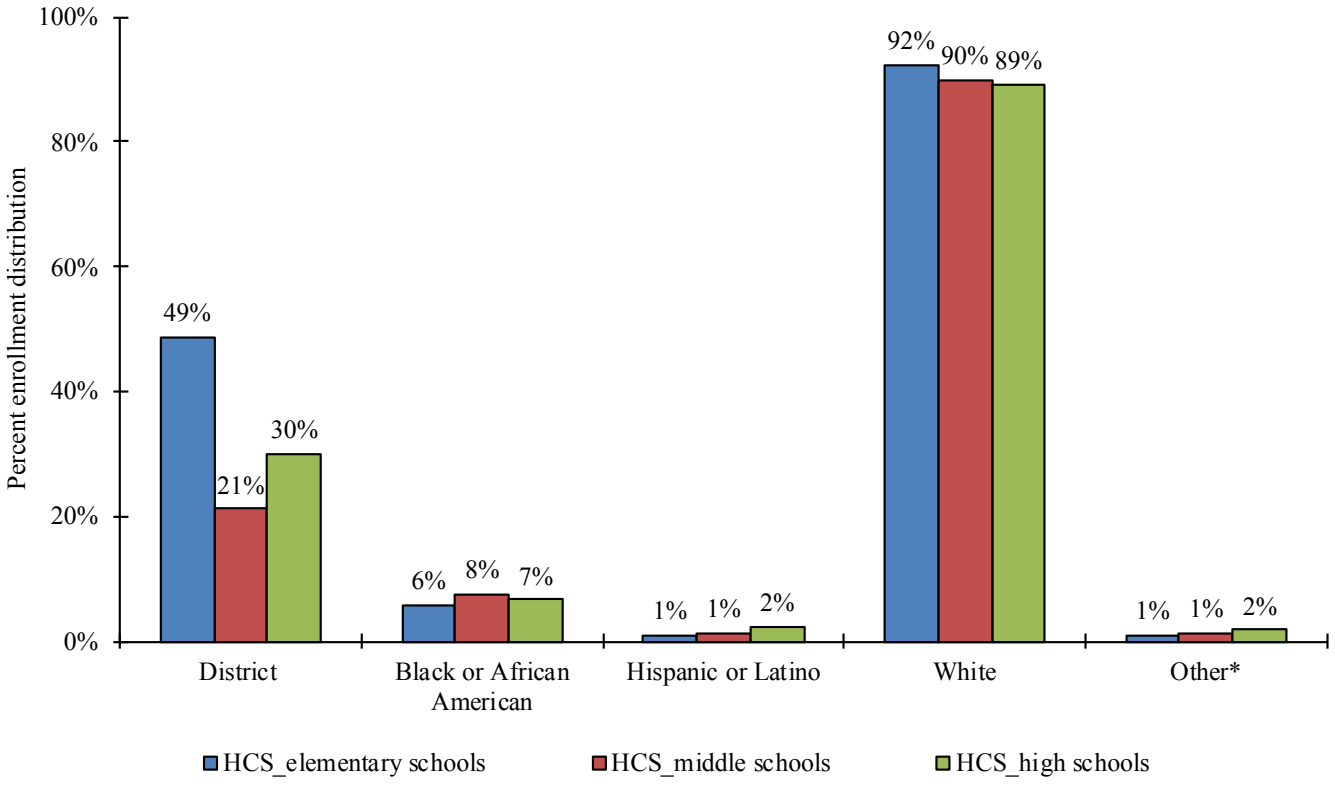
Source: South Carolina Department of Education

3.3 HCS: Percentage Distribution of Teachers by Demographics

The graph in Figure 3.4 depicts the profile of classroom teachers' percentages in elementary, middle, and high schools, including demographics across all three levels of schools. The graph clearly shows a quadratic distribution of teachers for the entire district. As expected, the largest number of teachers are found in elementary school because the middle schools generally have only three grade levels (6, 7, and 8). The quadratic distribution is mentioned because if one drew a curve through the top of the three bars, the shape would look like an upside down U to the novice. For the same reason, the quadratic behavior is seen in all districts for students and teachers alike. For example, 49%, 21%, and 30% of the teachers are distributed across elementary, middle, and high schools, respectively.

The graphs in Figures 3.5 through 3.7 provide a detailed distribution of these groups (Figure 3.4) in percentages for each school within Horry County Schools. The number of teachers is shown in parenthesis after the name. Data are not shown for groups with a sample size less than 10.

Figure 3.4: Horry County Schools—profile of teacher distribution by demographics



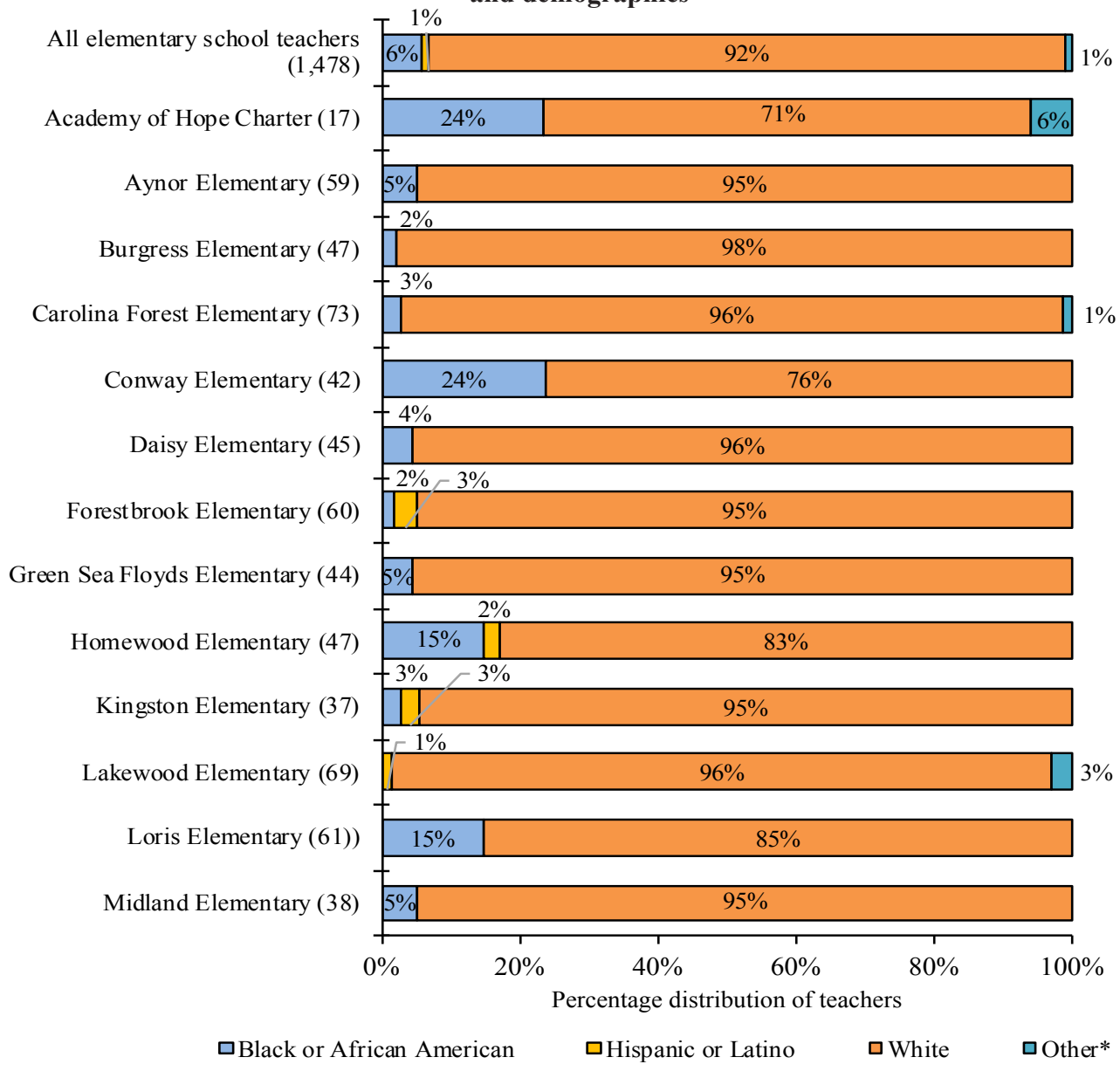
Source: Horry County Schools

*Native American, Native Alaskan, Asian, and Pacific Islanders

3.4 HCS Elementary Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.5) shows the percentage distribution of classroom teachers by school and demographics for Horry County Schools (HCS) elementary schools. There are approximately 1,478 elementary teachers serving about 21,092 students. This equates to about 14:1 student-teacher ratio in the county's elementary schools. Although the percentage of Black students in HCS elementary school is about 19%, the percentage share of Black teachers is only about 6%. To reach parity of Black teachers to Black students would require an additional 194 African-Americans teachers to replace White or other than Black teachers in HCS elementary classroom, which is not feasible, given the scarcity of this group pursuing a bachelor's degree in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Figure 3.5: Percentage distribution of HCS elementary classroom teachers by school and demographics

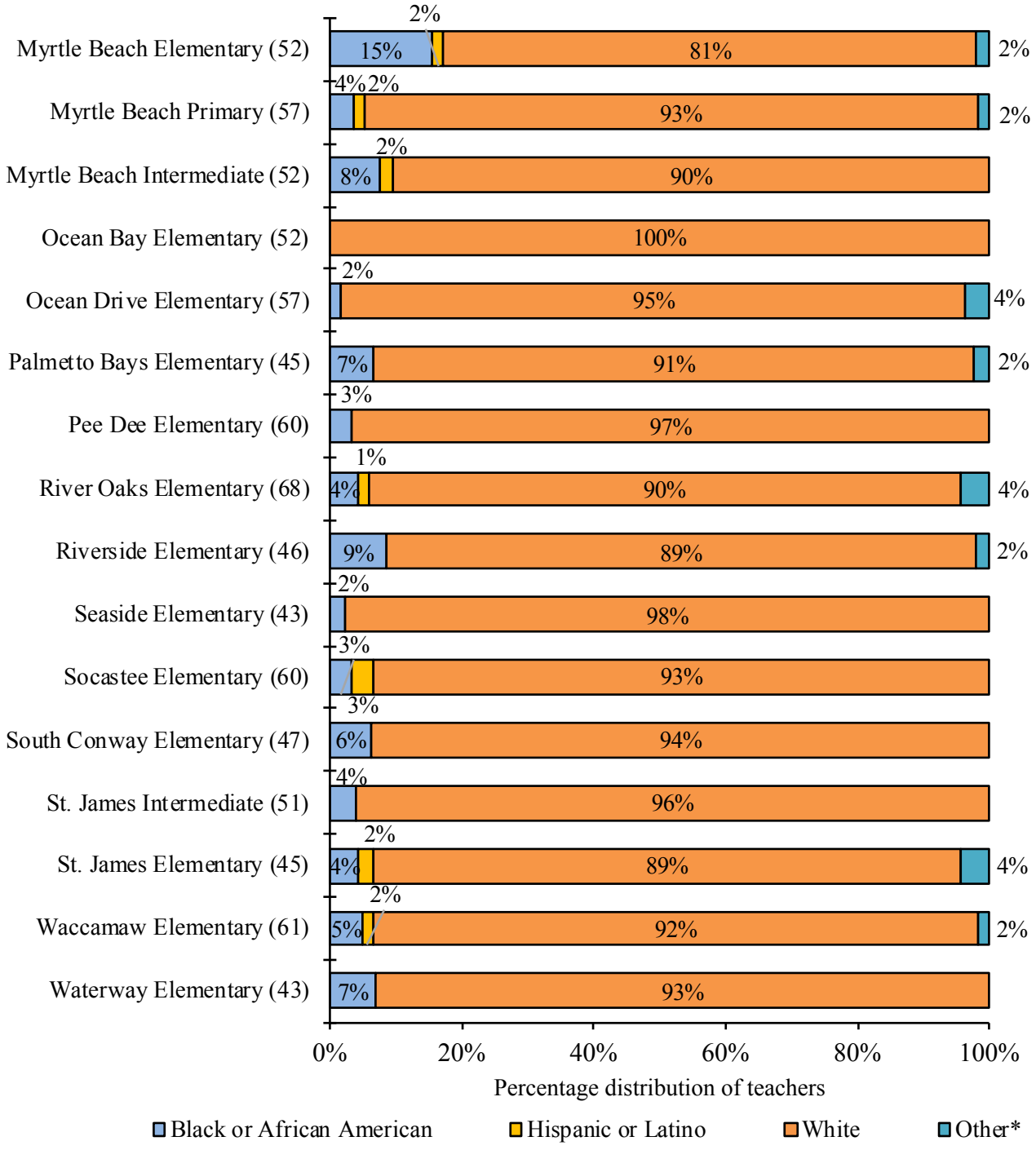


Source: Horry County Schools

*American Indian, Native Alaskan, Asian, and Pacific Islanders

3.4 HCS Elementary Schools: Percentage Distribution of Teachers by School and Demographics, cont'd

Figure 3.5: cont'd—Percentage distribution of HCS elementary classroom teachers by school and demographics



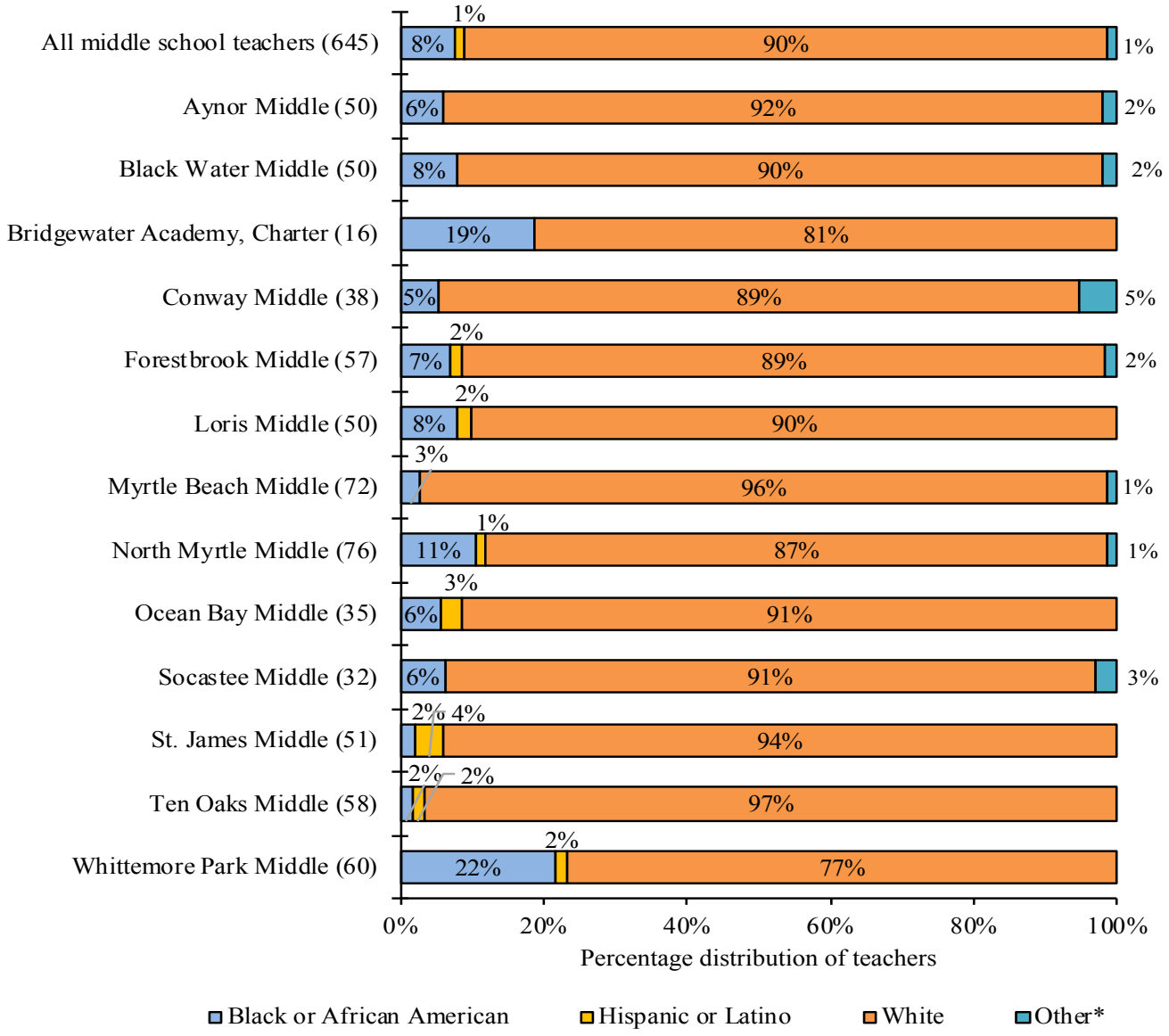
Source: Horry County Schools

*Native American, Native Alaskan, Asian, and Pacific Islanders

3.5 HCS Middle Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.6) profiles the percentage distribution of classroom teachers by school and demographics for Horry County Schools (HCS). There are approximate 645 middle school teachers listed in the graph below who serve about 9,834 students from the schools listed (Figure 3.6). This equates to about a 15:1 student-teacher ratio in the HCS middle schools. Although the percentage of Black students in HCS middle schools is about 19%, the share of Black teachers is only about 8%. In order for HCS to meet parity with Black teachers and Black students, the district would need to replace 74 White or other than Black teachers with Black teachers in its middle schools. This is not practical given the low number of African-Americans earning bachelor's degrees in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Figure 3.6: Percentage distribution of HCS middle school classroom teachers by demographics and school



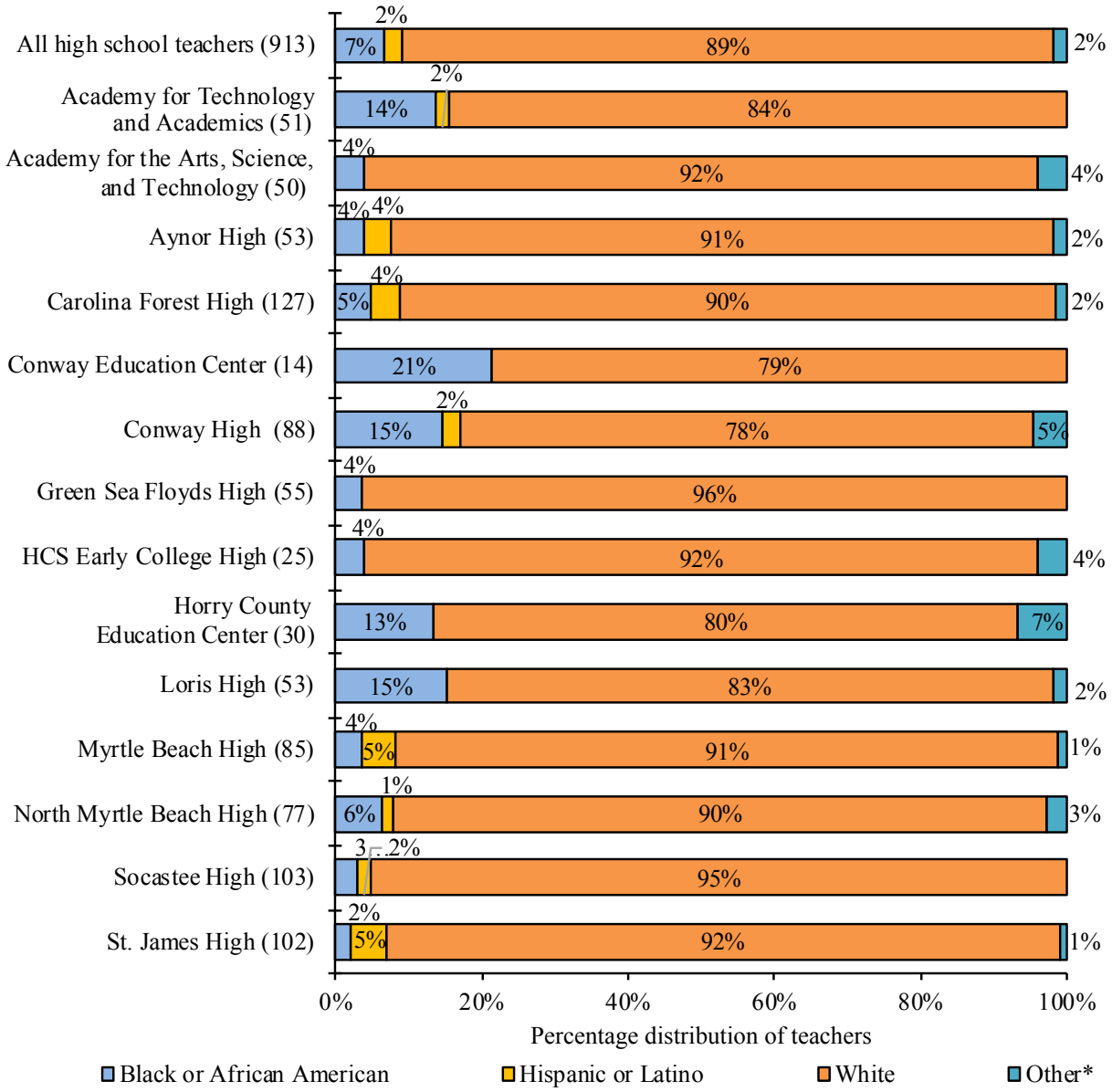
Source: Horry County Schools

*Native American, Native Alaskan, Asian, and Pacific Islanders

3.6 HCS High Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.7) shows the percentage distribution of classroom teachers by school and demographics for Horry County Schools (HCS) high schools. There are approximately 13,106 high school students distributed among the schools in Figure 3.7, which equates to about a 15:1 student-teacher ratio in the county's high schools. The percentage of Black students in HCS high schools is 20%, and the percentage of Black teachers is only about 7%. To meet parity of Black teachers to students, the district would need to replace 121 White teachers or other than Black teachers with African-American teachers in its high schools. As previously stated, this is not feasible given the low graduate rate of Blacks earning bachelor's degrees in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Figure 3.7: Percentage distribution of HCS high school classroom teachers by demographics and school



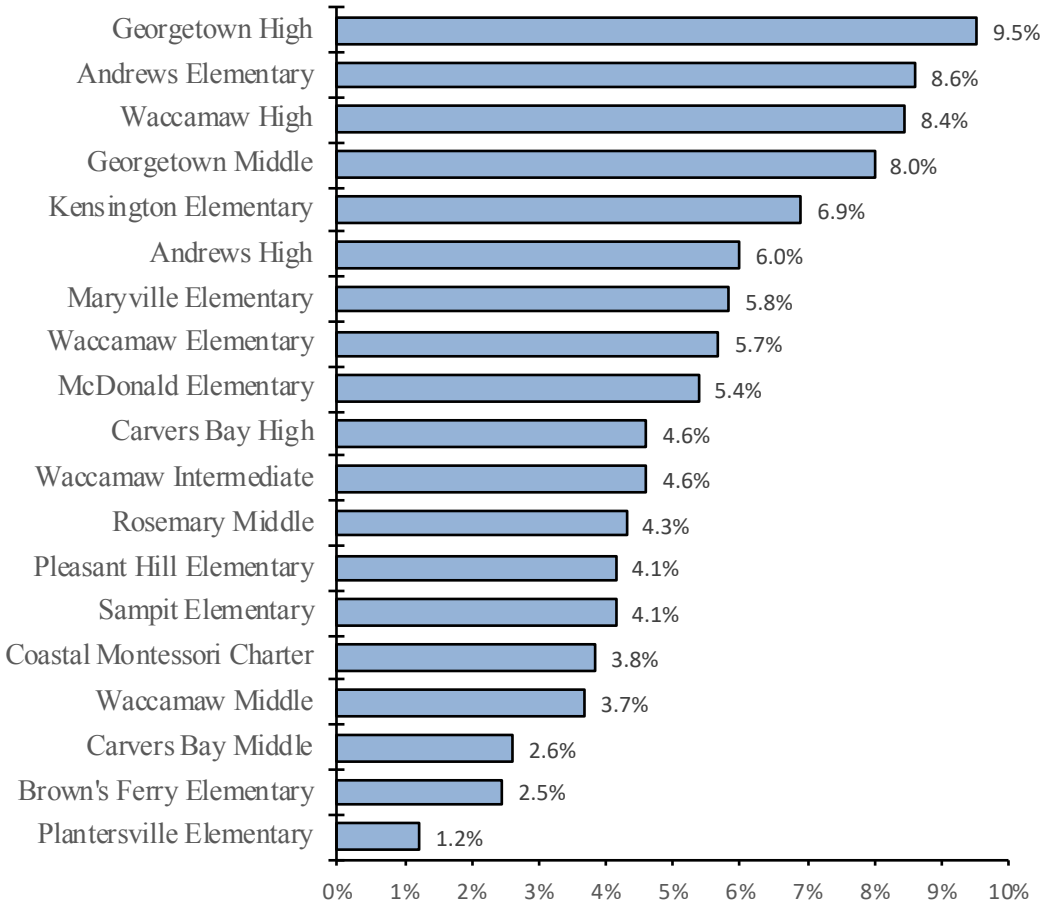
Source: Horry County Schools

*Native American, Native Alaskan, Asian, and Pacific Islanders

3.7 GCSD: Percentage Distribution of Teachers by School

The graph (Figure 3.8) shows the percentage enrollment distribution of teachers in the Georgetown County School District. These schools serve approximately 9,450 students with about 651 classroom teachers. The percentage in the graph below show the placement of teachers at the various district schools.

Figure 3.8: Percentage share of teachers in each school (n = 651)



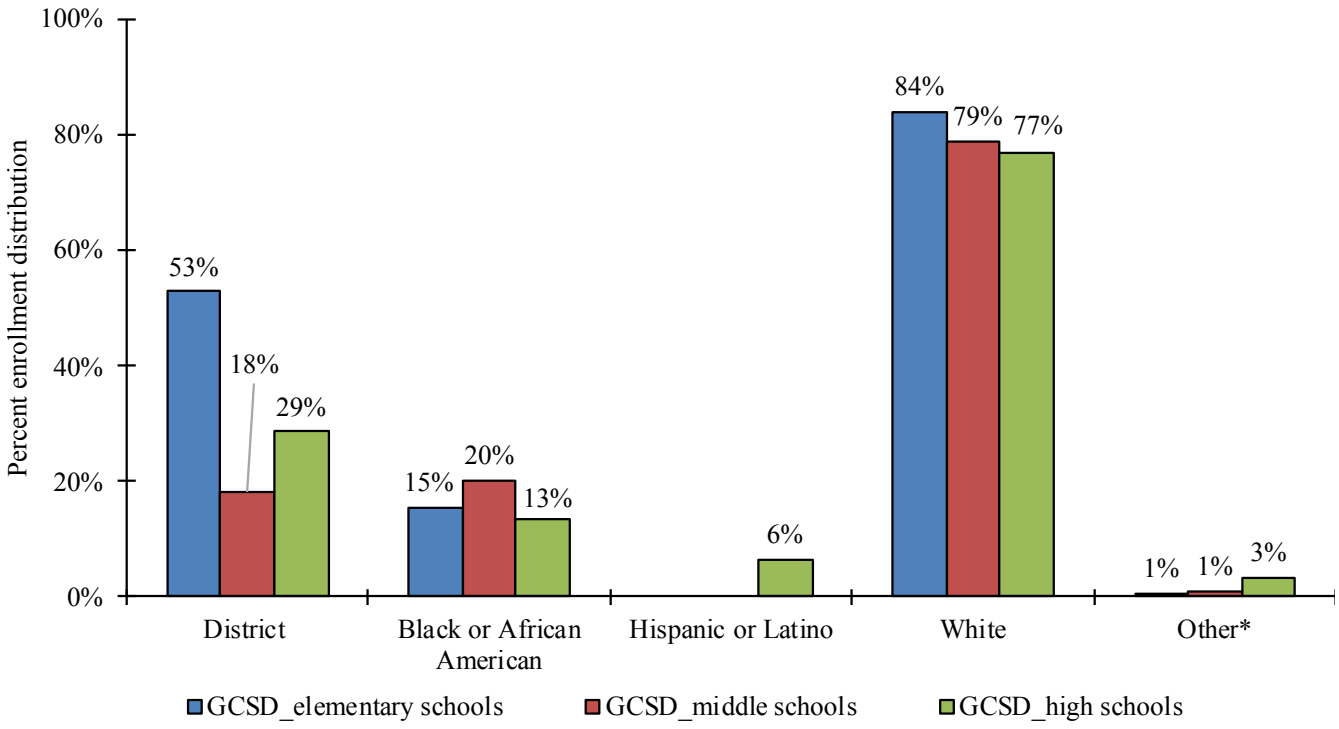
Source: Georgetown County School District

3.8 GCSD: Percentage Distribution of Teachers by Demographics

The graph in Figure 3.9 depicts the profile of classroom teacher percentages in elementary, middle, and high schools, including demographics across all three levels of schools. The graph clearly shows a linear profile, which behaves closely with counterpart graphs for students (Paragraph 3.3) to explain a behavior pattern. As expected, the largest numbers of teachers are employed at the district's elementary schools (PK–5) where 53% of the students are enrolled relative to the total population of the district.

The graphs in Figures 3.10 through 3.12 provide a detailed distribution of these groups (Figure 3.9) in percentages for each school within the Georgetown County School District. Data are not shown for groups with sample size less than 10.

Figure 3.9: Georgetown County School District—percentage of teacher distribution by demographics



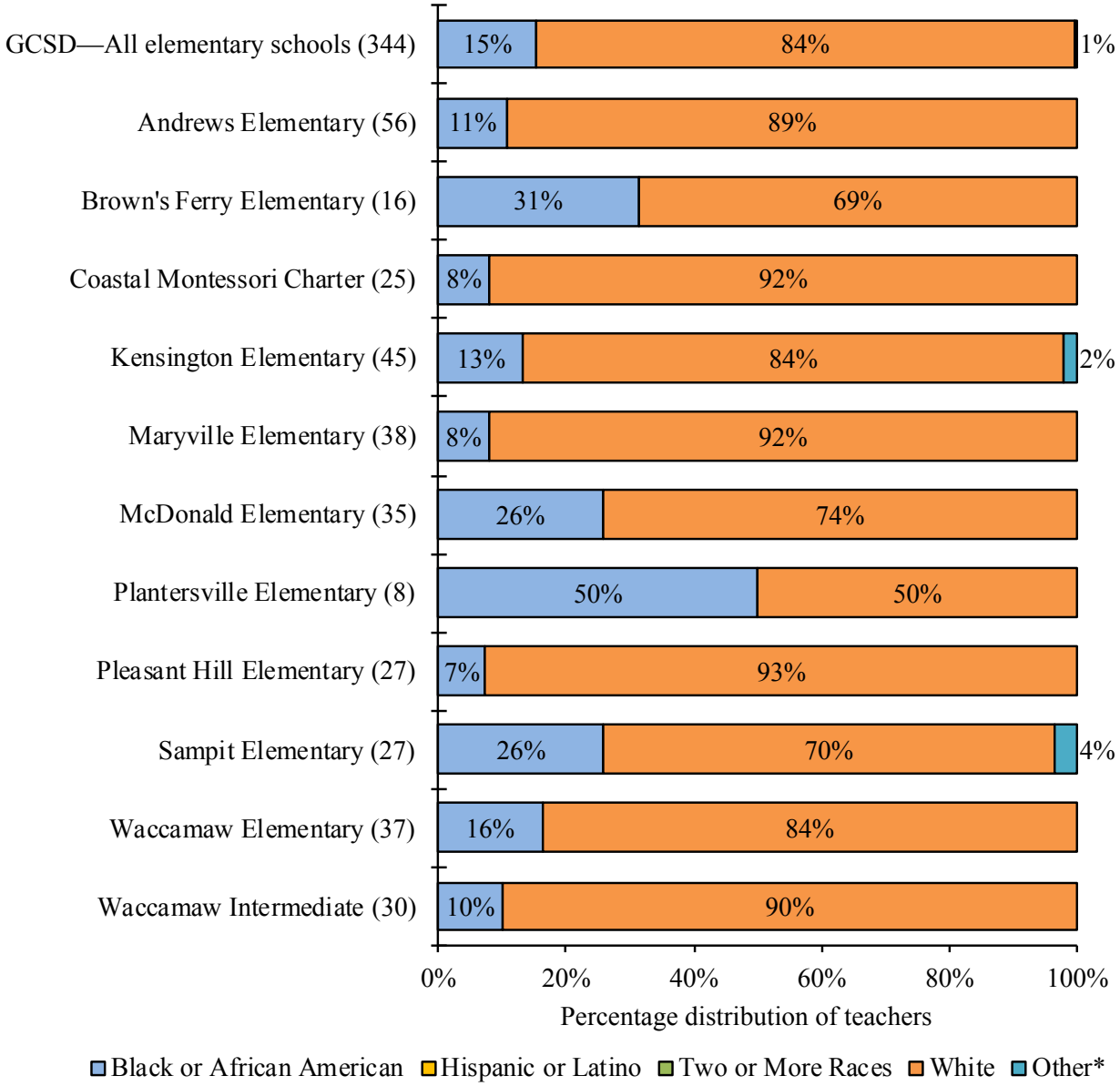
Source: Georgetown County School District

*American Indian, Native Alaskan, Asian, and Pacific Islanders

3.9 GCSD Elementary Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.10) shows the percentage distribution of classroom teachers by school and demographics in the Georgetown County School District (GCSD) elementary schools. There are approximately 344 elementary teachers serving about 4,739 students. This equates to about a 14:1 student-teacher ratio in the county's elementary schools. The percentage of Black students in GCSD for elementary schools is about 44% and the percentage of Black teachers is much less at 15%. However, attaining parity of Black teachers to Black students would require replacing 99 White or other than Black teachers with African American teachers in GCSD elementary schools, which is not feasible given the small number of blacks earning a bachelor degree in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Figure 3.10: Percentage distribution of Georgetown County School District's elementary classroom teachers by demographics and school



Source: Georgetown County School District

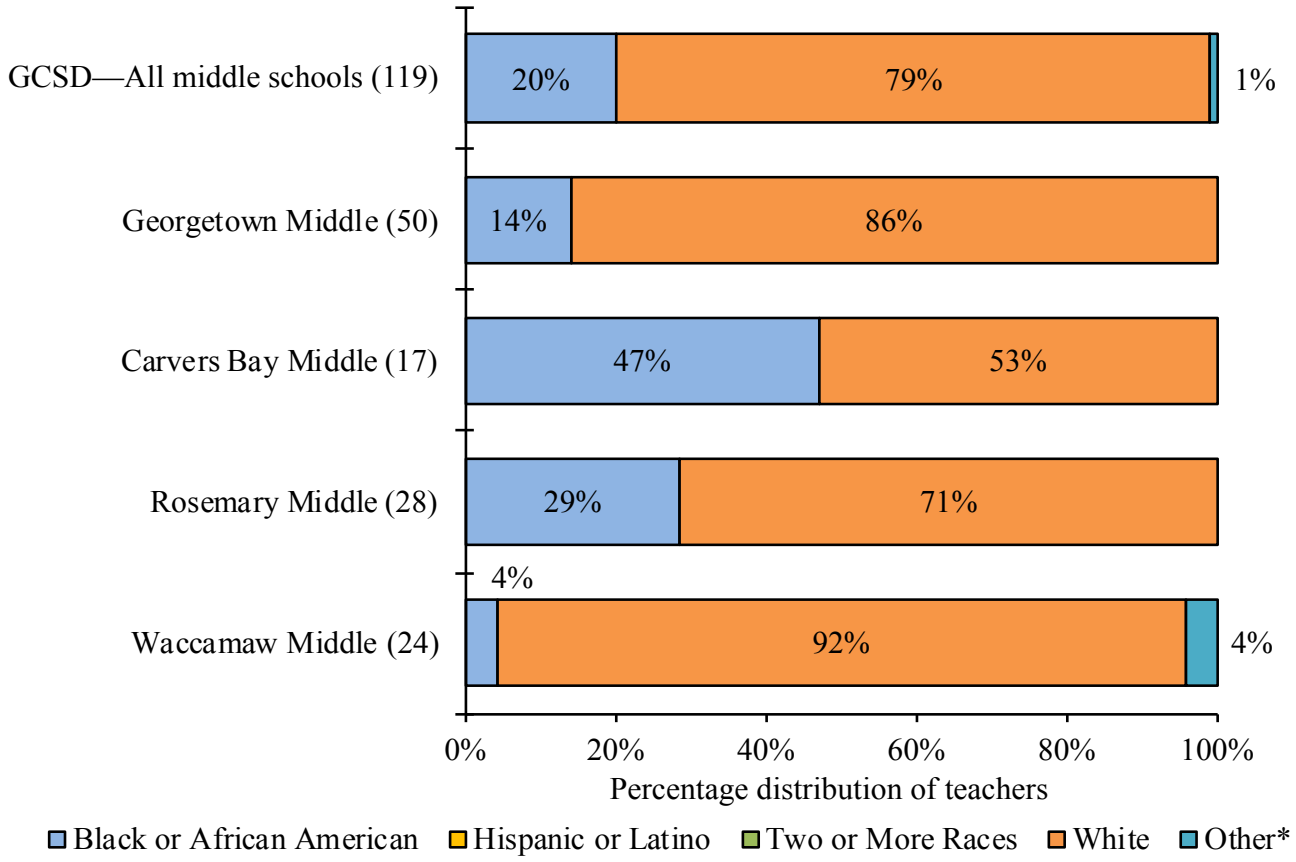
*American Indian, Native Alaskan, Asian, and Pacific Islanders

3.10 GCSD Middle Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.11) depicts the percentage distribution of classroom teachers by school and demographics in Georgetown County School District (GCSD) middle schools. There are approximate 119 middle school teachers serving about 1,923 students. This equates to about a 16:1 student-teacher ratio in the county's middle schools. The percentage of Black students in GCSD middle schools is about 44%, and the percentage of black teachers is at 20%. Attaining parity of Black teachers to Black students would require replacing 29 White teachers or other than Black teachers with African-American teachers. Even this number be challenging given the small number of Blacks earning a bachelor's degree in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Carvers Bay Middle School is an interesting situation because in order to reach parity, it would need to replace about five Black teachers with White or other than African-American.

Figure 3.11: Percentage distribution of Georgetown County School District's middle school classroom teachers by school and demographics



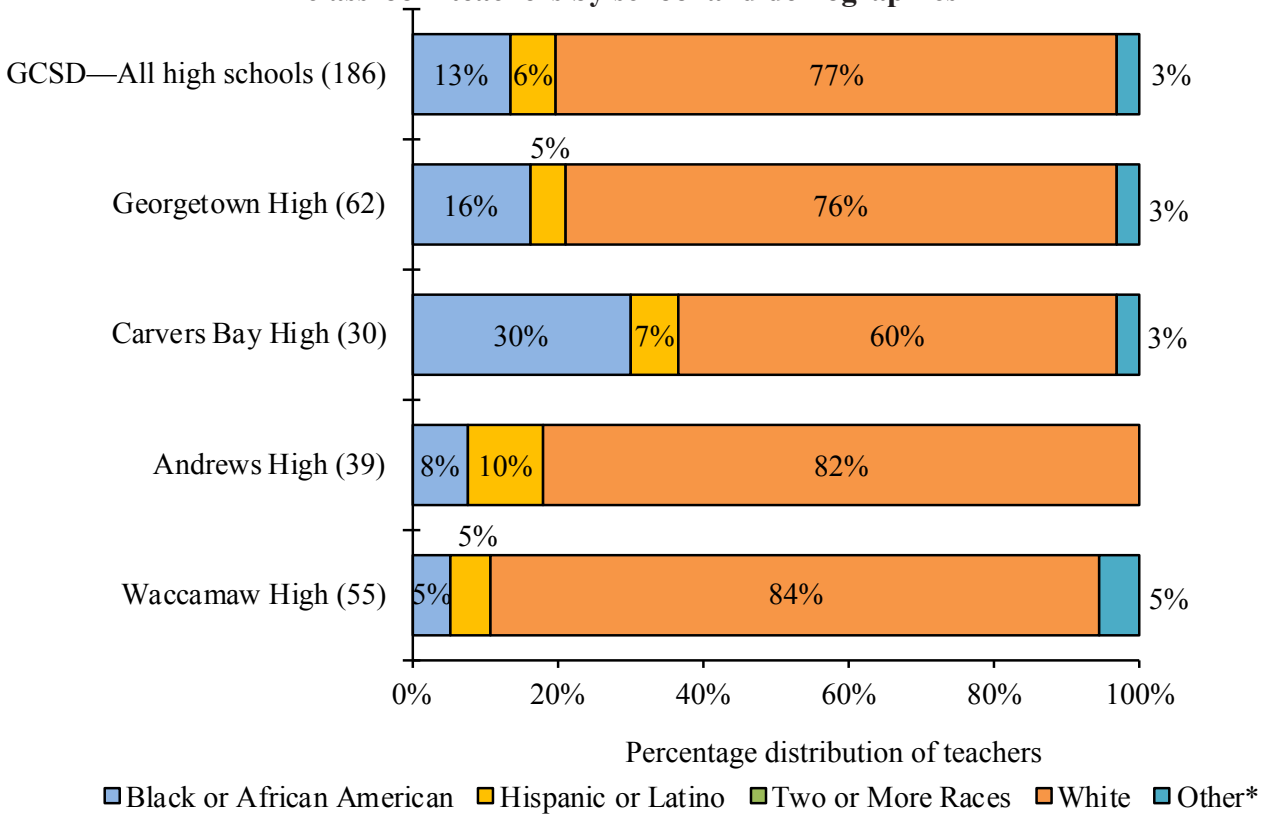
Source: Georgetown County School District

*American Indian, Native Alaskan, Asian, and Pacific Islanders

3.11 GCSD High Schools: Percentage Distribution of Teachers by School and Demographics

The graph (Figure 3.12) shows the percentage distribution of classroom teachers by school and demographics in Georgetown County School District (GCSD) high schools. There are approximately 186 high school teachers serving about 2,878 students. This equates to about a 16:1 student-teacher ratio in the county's high schools. The percentage of Black teachers in GCSD high schools is about 13%, and Black students 43%, Attaining parity of Black teachers to Black students would require replacing 55 White teachers or other than Black teachers with African-American teachers. This is not practical given the small number of Blacks earning a bachelor's degree in education (Distributions of Educators and Students Relative to Race/Ethnicity by David C. Wilson, 2016).

Figure 3.12: Percentage distribution of Georgetown County School District's high school classroom teachers by school and demographics



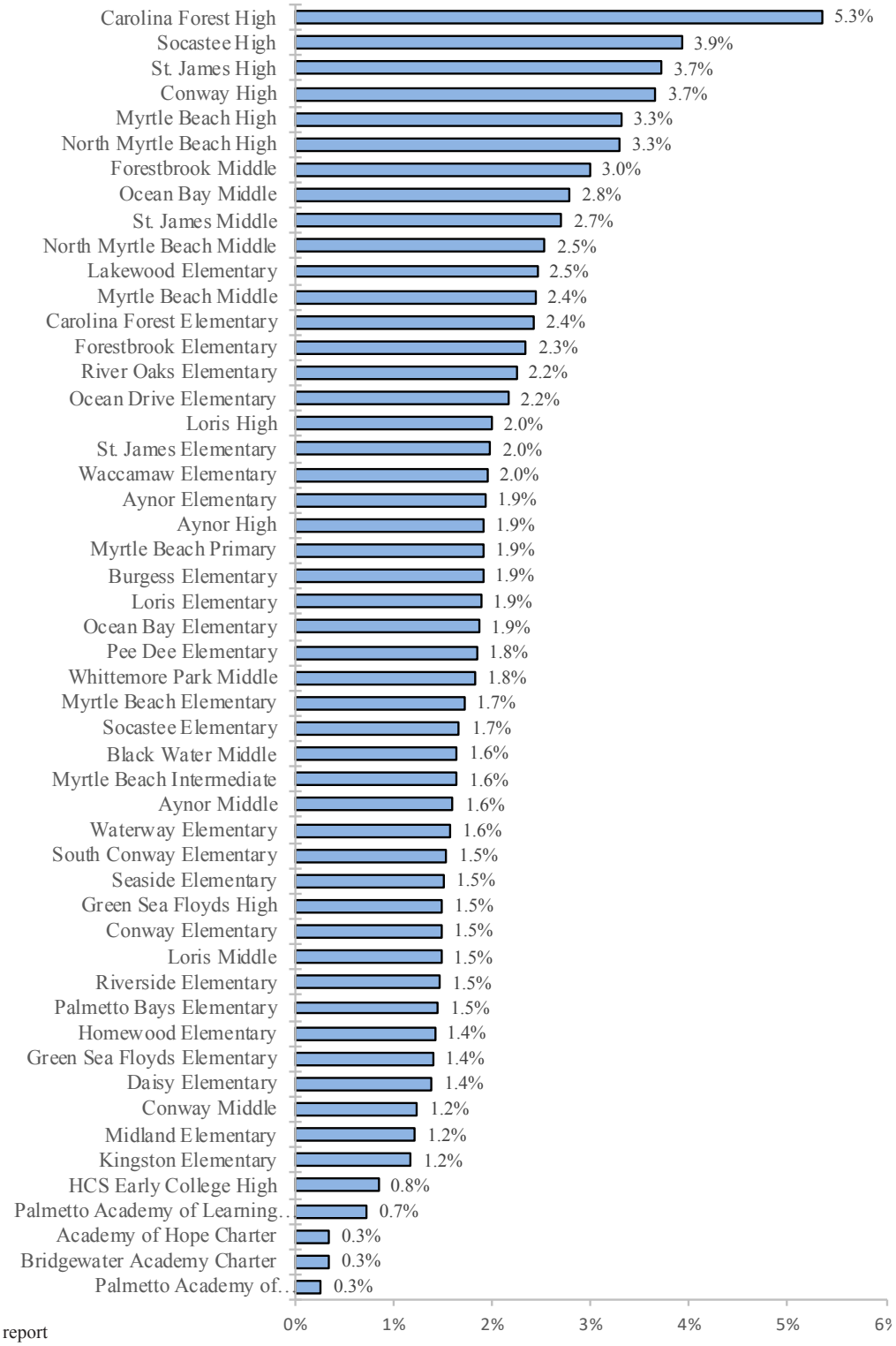
Source: Georgetown County School District

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.1 HCS: Percentage Distribution of Students by School

The graph (Figure 4.1) shows the percentage enrollment distribution of students attending Horry County Schools. These schools serve approximately 44,032* students, and the percentages shown in the graph indicate each school's share of the total number.

Figure 4.1: Percentage distribution of students in each school (n = 44,032)



*Number pertains to schools listed in this report

Source: South Carolina Department of Education

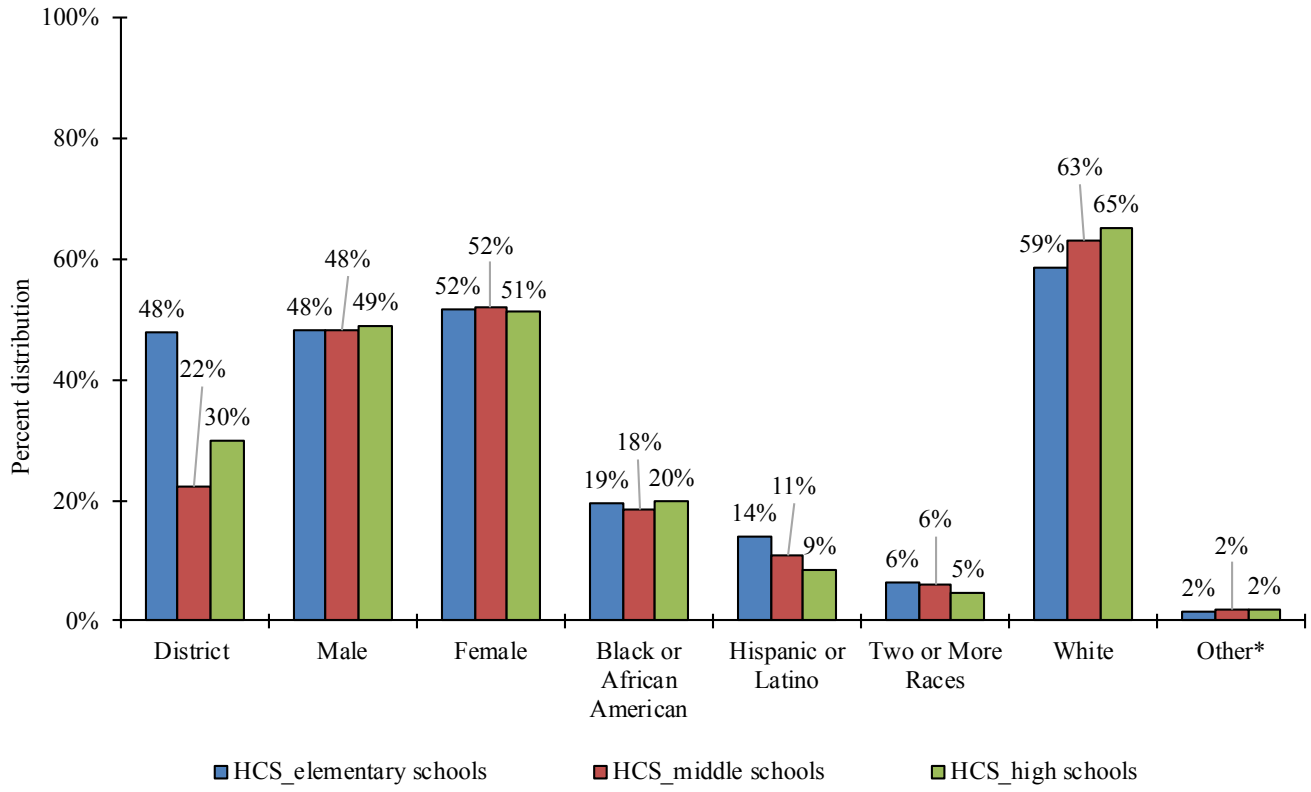
4.2 HCS: Percentage Enrollment Distribution of Students by Demographics

The graph in Figure 4.2 depicts the profile of student enrollment by demographics within the school district. The graph clearly shows small differences in enrollment patterns for the gender, Black, and White demographics for each school level. The school levels shown in this graph are elementary, middle, and high schools. As expected, the largest number of students is enrolled in elementary schools (grades PK–5).

The graphs (Figures 4.3 through 4.10 provide a detailed distribution of these groups in percentages for each school within the Horry County Schools.

All student enrollment data used in this report are from South Carolina Department of Education public schools by gender and race/ethnicity or ethnicity for 2016–17, with a 45 day headcount from PK–12.

Figure 4.2: Profile of enrollment in Horry County Schools by demographics



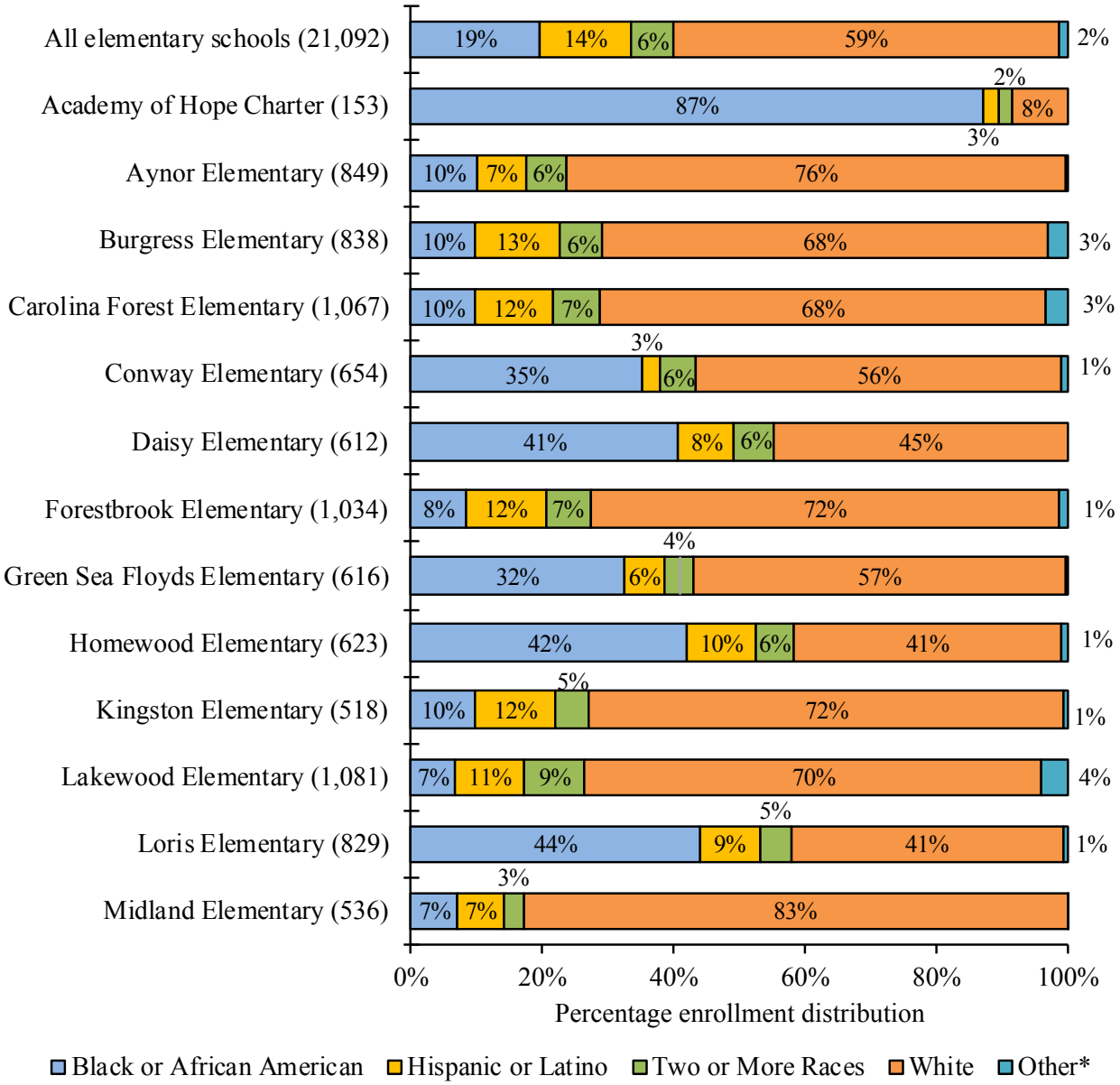
Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.3 HCS Elementary Schools: Percentage Distribution of Students by School and Demographics

The graphs (Figures 4.3, 4.4, and 4.5) depict the percentage enrollment distribution by school and demographics for all public schools serving the students of Horry County. These schools serve approximately 44,000 students in the nine attendance areas of Myrtle Beach, Carolina Forest, Conway, Socastee, North Myrtle Beach, Loris, Aynor, Green Sea Floyds, and St. James. Feeders schools are located in each attendance area. The Academy for the Arts, Science, and Technology and the Academy for Technology and Academics are not independent schools; therefore, they are not shown in this section because their students belong to one of the base schools.

Figure 4.3: Percentage enrollment distribution of elementary school students in Horry County Schools by school and demographics

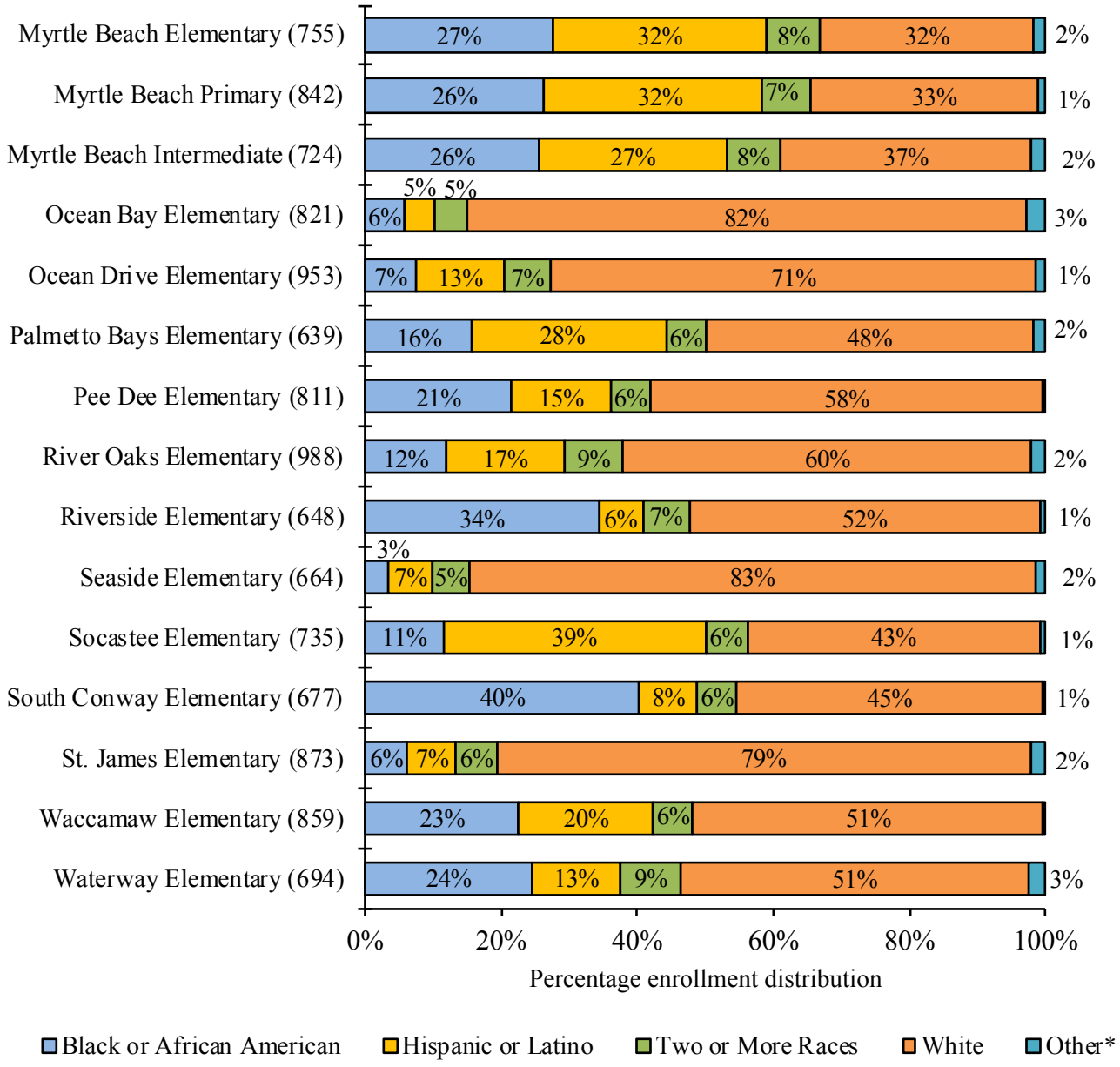


Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.3 HCS Elementary Schools: Percentage Distribution of Students by School and Demographics, cont'd

Figure 4.3: cont'd—Percentage distribution of students in Horry Country Schools by school and demographics

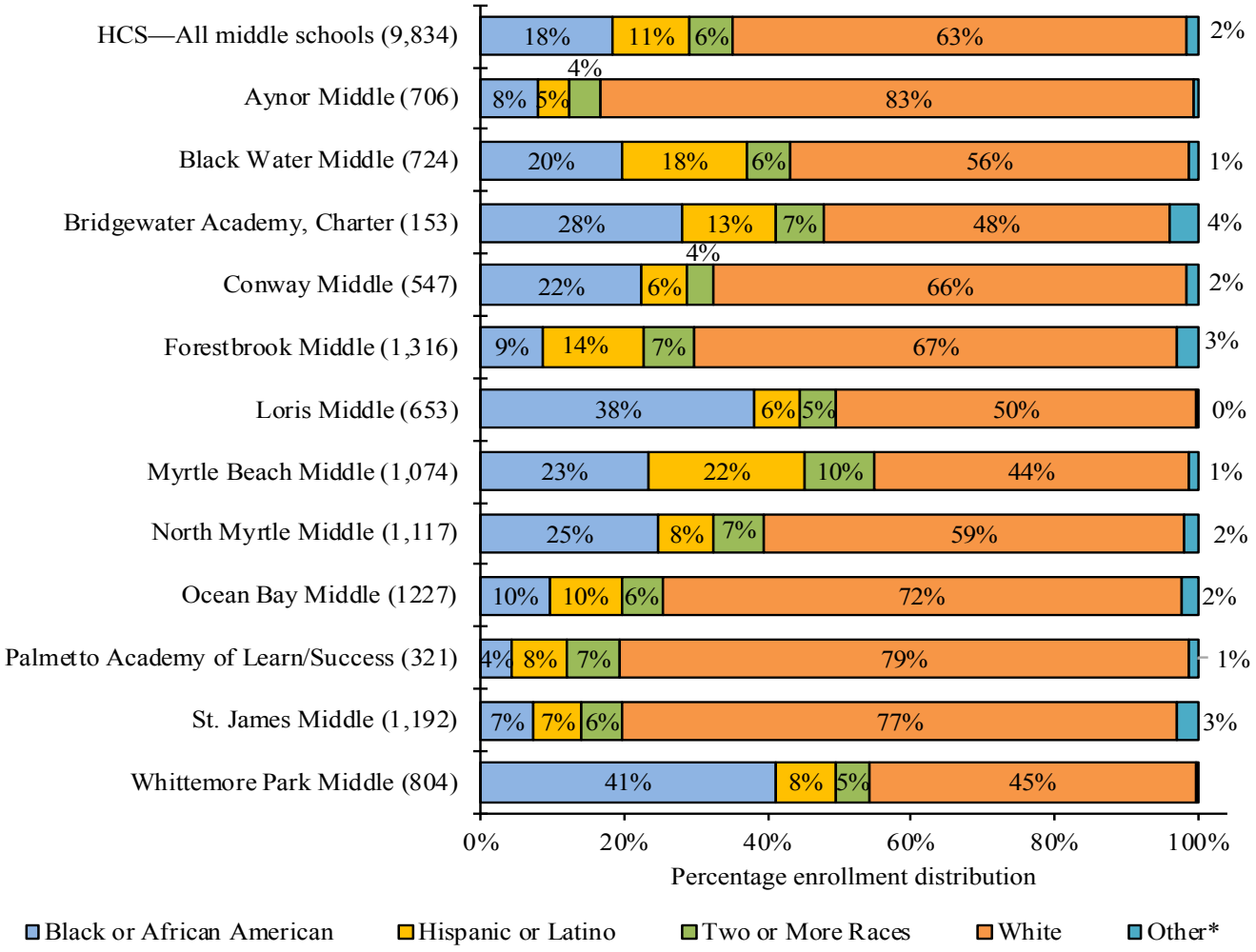


Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.4 HCS Middle Schools: Percentage Distribution of Students by School and Demographics

Figure 4.4: Percentage distribution of middle school students in Horry Country Schools by school and demographics

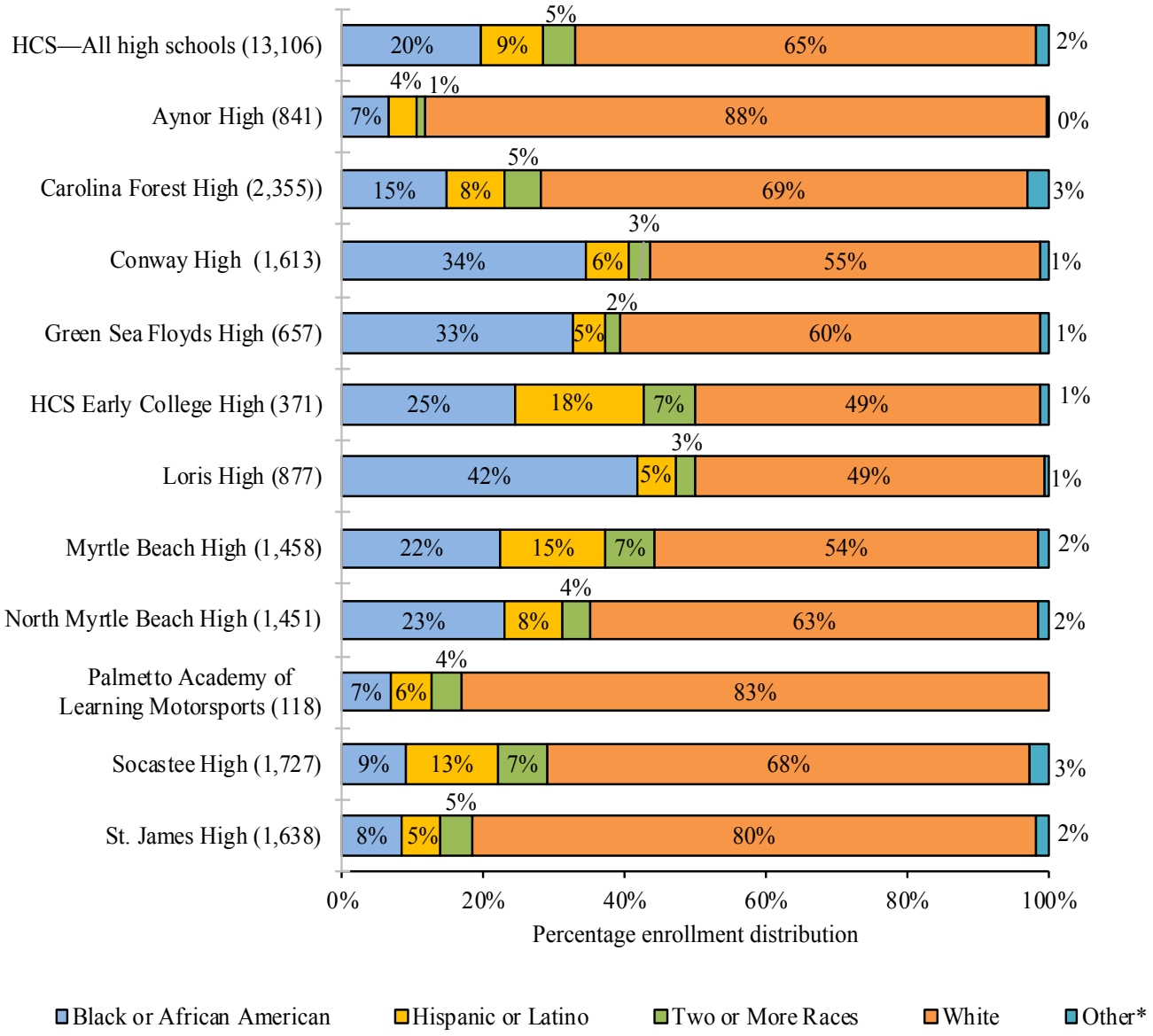


Source: South Carolina Department of Education

*Native American, Native Alaskan, Asian, and Pacific Islanders

4.5 HCS High Schools: Percentage Distribution of Student by School and Demographics

Figure 4.5: Percentage distribution of high school students in Horry County Schools by school and demographics



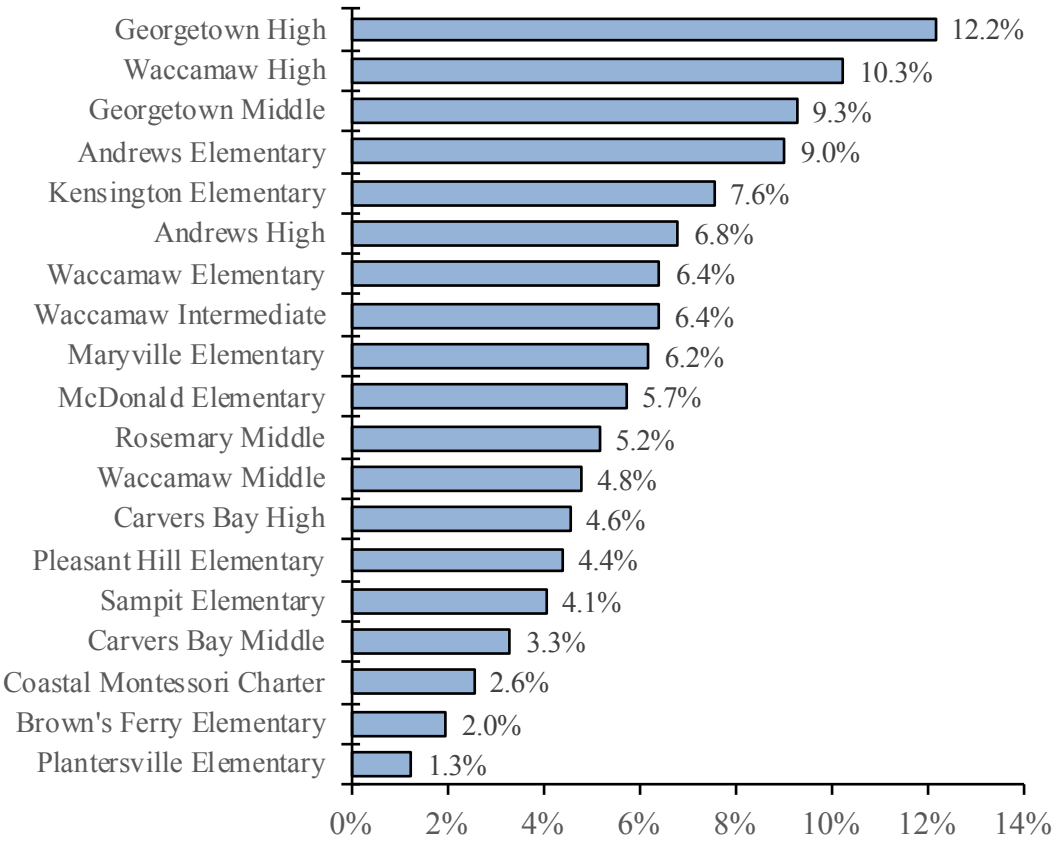
Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.6 GCSD: Percentage Distribution of Students by School

The graph (Figure 4.6) shows the percentage distribution of students in the public schools serving the students of the Georgetown County School District (GCSD) in South Carolina. These schools serve approximately 9,540* students and comprise four high schools, four middle schools, and eleven elementary schools. Adult education and any special schools are not included in this paper. Of the four high schools, Georgetown High School and Waccamaw High School have the largest percentages of students, 12.2% and 10.3%, respectively. Even though the schools are a mix of grades PK–12, the purpose of the chart is to illustrate the percentage distribution of how the students are divided up among schools.

Figure 4.6: Percentage enrollment distribution of students in Georgetown County District schools**



Source: South Carolina Department of Education

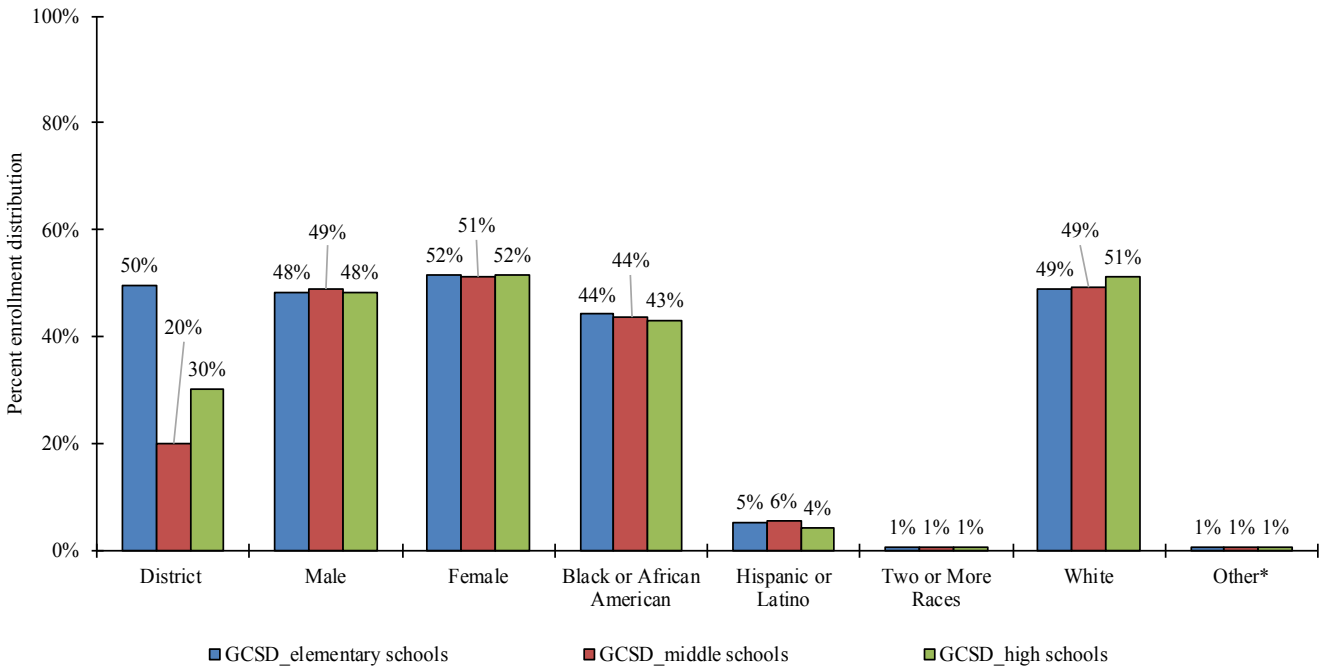
*Number pertains to schools listed in this paper.
**Throughout this paper, the majority of graphs show percentages rounded to the nearest whole number. However, in this case, the percentages were carried to one decimal place for accuracy in order to provide more accuracy on each school's enrollment.
†Student in enrollment is in South Carolina public schools by gender and race/ethnicity or ethnicity for 2016-17, with a 45 day headcount from PK–12.

4.7 GCSD: Percentage Enrollment Distribution of Students by Demographics

The graph in Figure 4.7 depicts the profile of student enrollment by race/ethnicity and gender within the school district. The graph clearly shows a linear profile with virtually no differences in enrollment patterns per group in elementary, middle, and high schools. The distribution relative to gender and race/ethnicity depicts a correlation in pattern among the three school levels. As expected, the largest number of students is enrolled in elementary schools (grades PK–5).

The graphs in Figures 4.8 through 4.10 provide a detailed distribution of these groups in percentages for each school within the Georgetown County School District.

Figure 4.7: Profile of enrollment in Georgetown County District schools by gender and race/ethnicity



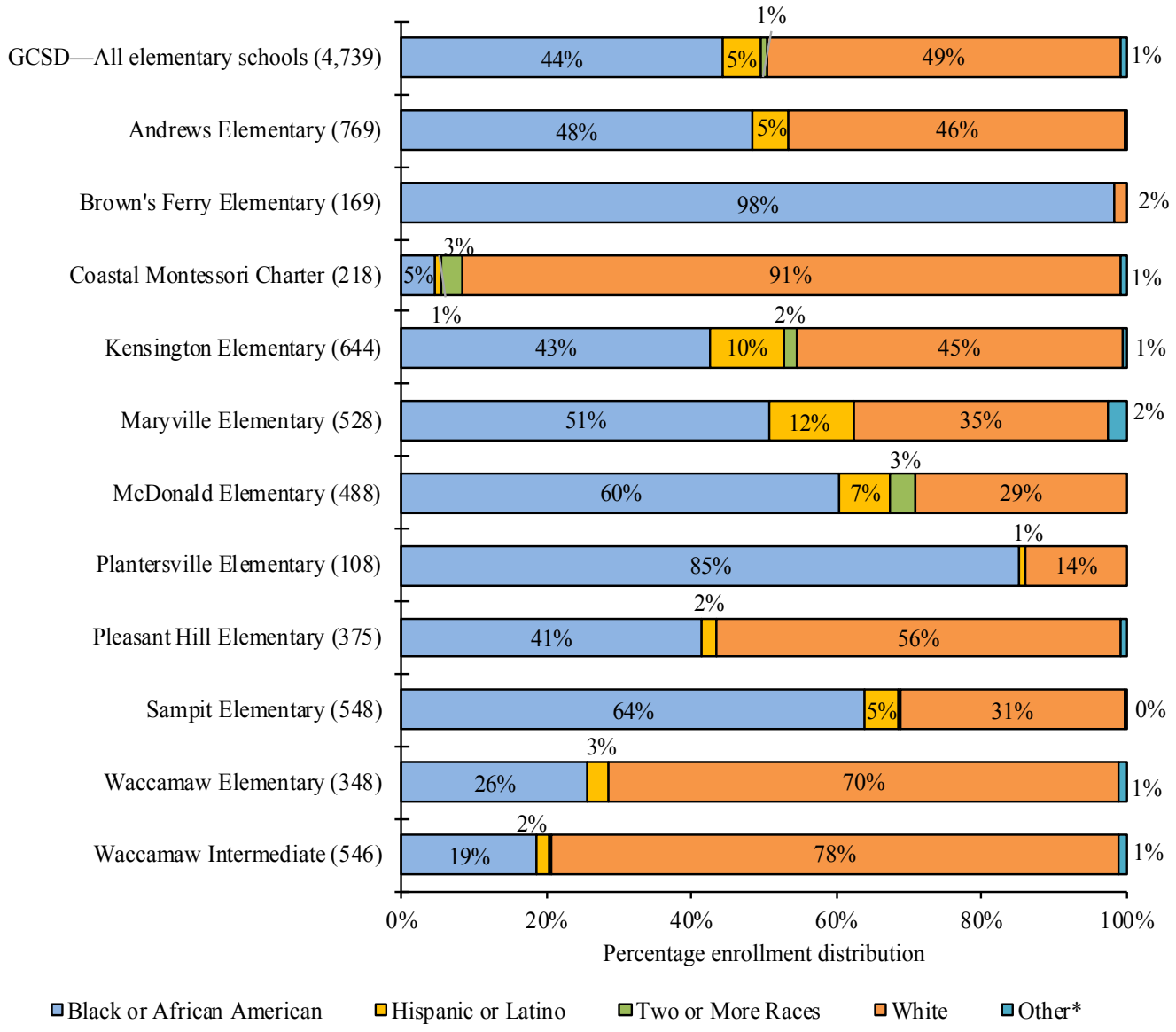
Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.8 GCSD Elementary Schools: Percentage Distribution of Students by School and Demographics

The graph (Figure 4.8) shows the percentage enrollment distribution by demographics in public schools serving the students of Georgetown County School District (GCSD) in South Carolina. These schools serve approximately 9,450 students and comprise four high schools, four middle schools, and eleven elementary schools.

Figure 4.8: Percentage distribution of students in the Georgetown County School District by elementary school and demographics

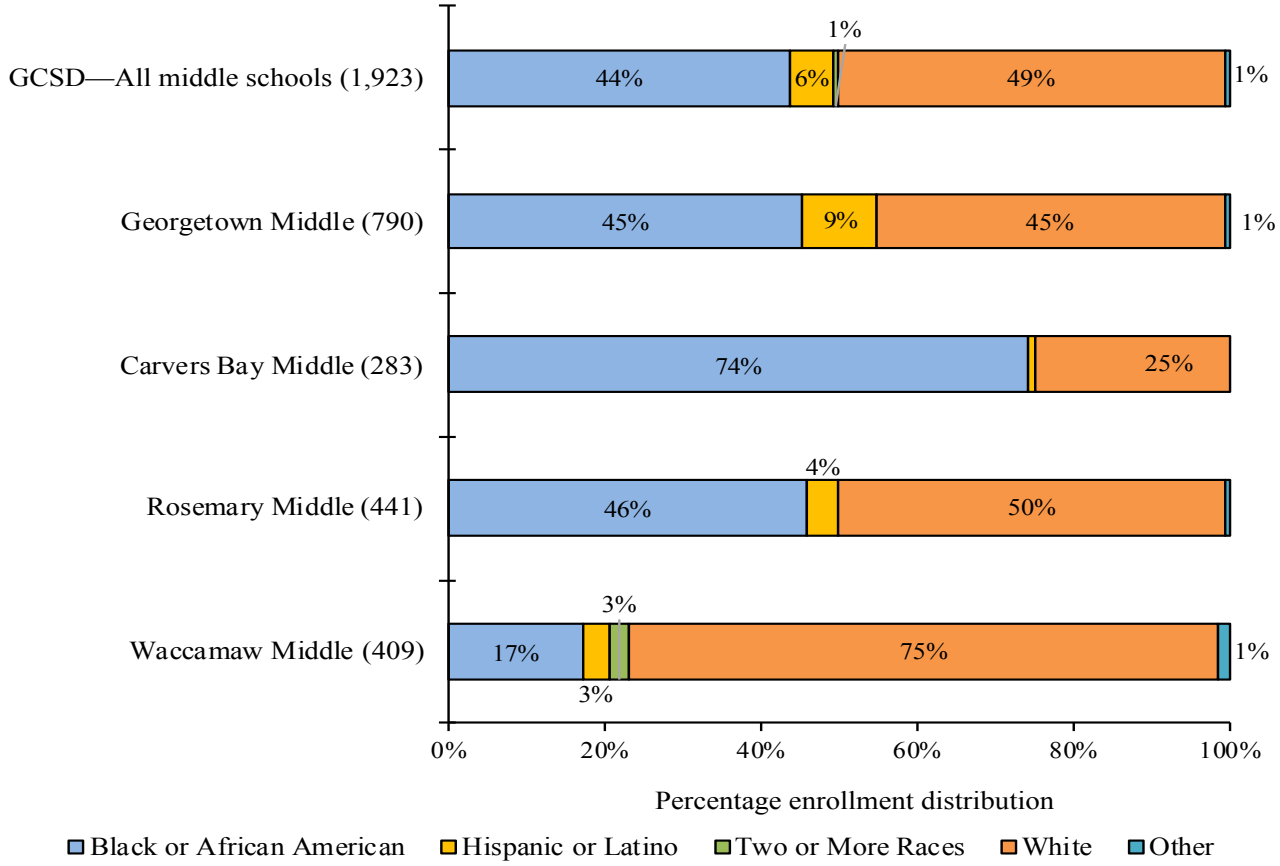


Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.9 GCSD Middle Schools: Percentage Distribution of Students by School and Demographics

Figure 4.9: Percentage distribution of students in Georgetown County School District middle schools by school and demographics*

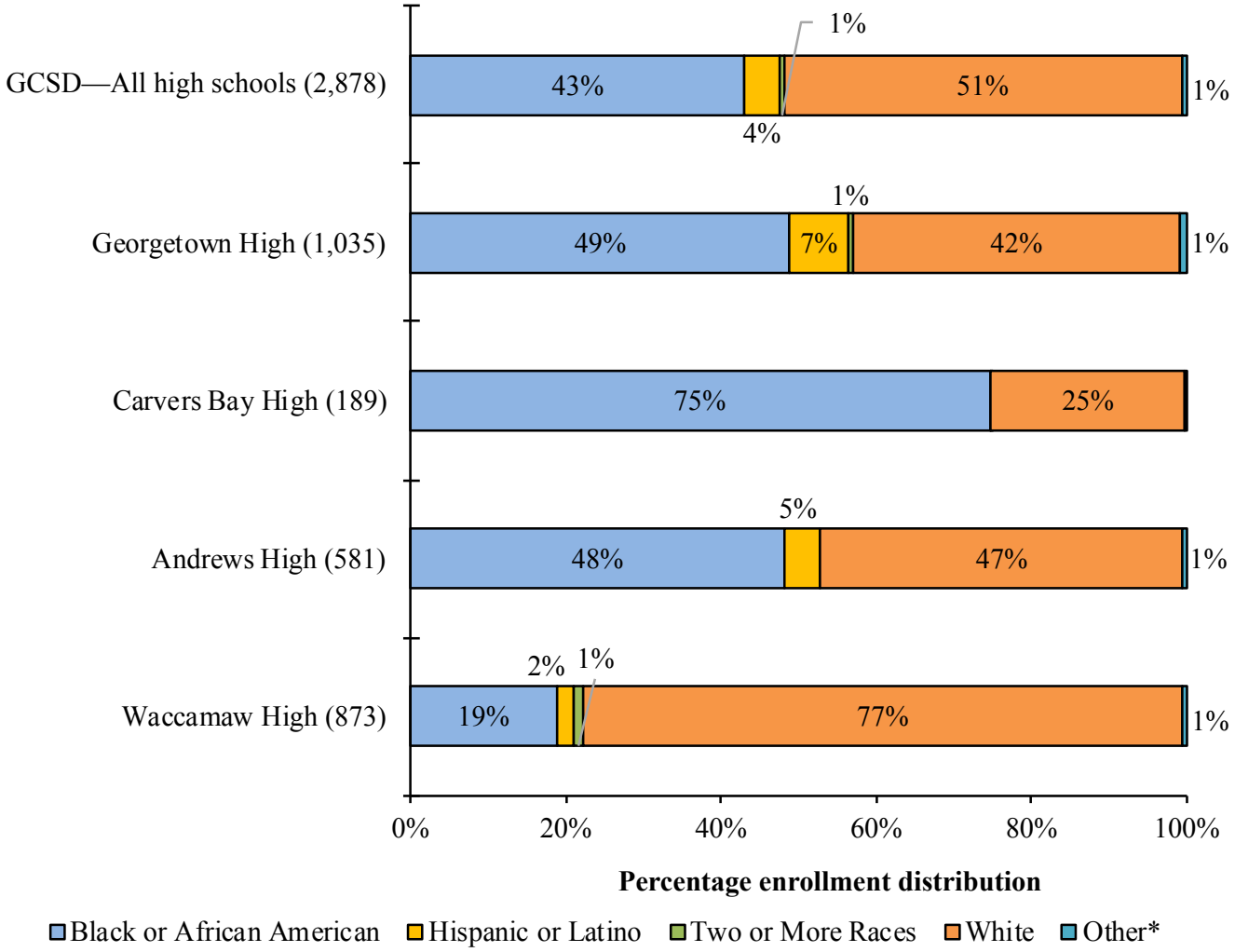


Source: South Carolina Department of Education

*American Indian, Native Alaskan, Asian, and Pacific Islanders

4.10 GCSD Middle Schools: Percentage Distribution of Students by School and Demographics

Figure 4.11: Percentage distribution of students in Georgetown County School District high schools by school and demographics



*Source: South Carolina Department of Education

*Native American, Native Alaskan, Asian, and Pacific Islanders

5.1 Introduction to SCPASS and SCREADY Assessments

The the next six sections (5, 6, 7, 8, 9, and 10) will profile the benchmarks for 2017. They are the South Carolina Palmetto Assessment of State Standards (SCPASS)—Science and Social Studies, the South Carolina College-and-Career Ready Assessment (SC Ready)—English Language Arts and Mathematics. This will include elementary school performance by school, and middle school performance by school. These are all public schools that are operated by Horry County Schools and Georgetown County School District, respectively.

Table 5.1 is intended to give the reader a sense of the weight of the percentages used through the next six sections of this paper. The data in the table are average numbers of test takers, which was done to avoid using an overwhelming set of numbers when the variation is very small. For exact numbers per test, refer to South Carolina Department of Education website at https://ed.sc.gov/data/test-scores/ to review these test data.

As you browse the graphs and comments in the next six sections, you will observe that the pages are replete with graphs as a convenience to the reader so that he or she will get quick snapshots of students' benchmark performance levels in percentages from 2017 results. However, in light of the fact that these six sections are replete with graphs and comments, the numbers in the graph will provide the reader with a better sense of the percentages as they apply to various groups, races/ethnicities, and genders.

Table 5.1 Average number of students who took the SCPASS and SC READY by demographics in 2017

Description	South Carolina	Horry County Schools	Georgetown County School District
All Students	344,842	19,920	4,274
Male	176,021	10,195	2,218
Female	168,759	9,725	2,056
Hispanic or Latino	32,383	2,311	230
American Indian or Alaska Native	1,104	63	4
Asian	5,349	252	18
Black or African American	115,299	3,816	1,817
Native Hawaiian or Other Pacific Islander	461	31	10
White	176,646	12,314	2,164
Two or more races	13,445	1,131	31

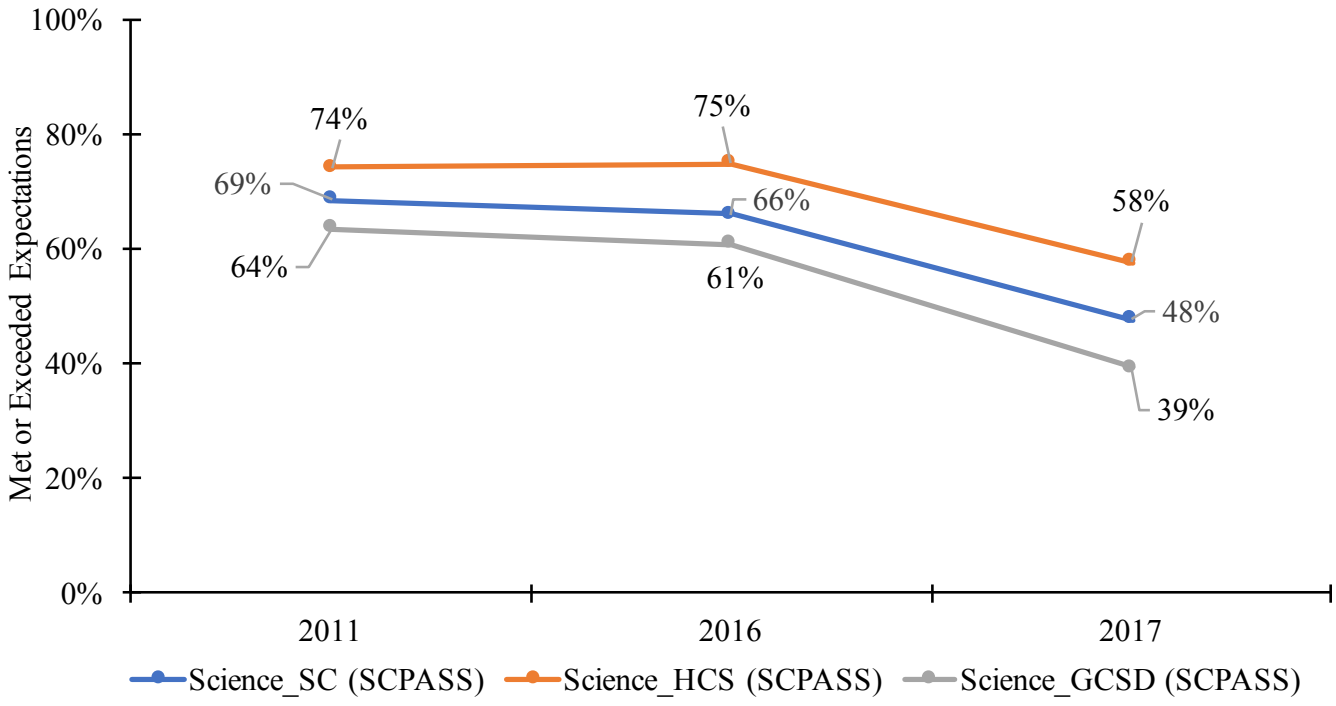
*Source: South Carolina Department of Education

5.2 SCPASS Performance Trends in Science

The graph (Figure 5.1) illustrates a profile of performance patterns among South Carolina (SC), Horry County Schools (HCS), and the Georgetown County School District (GCSD), respectively. The performance among the three entities shows a parallel profile with significant gaps between each entity. The figure includes percentages of students meeting or exceeding science SCPASS benchmarks in 2011, 2016, and 2017, respectively. The percentage of students who met or exceeded the benchmark experienced a significant downward turn from 2016 to 2017. The decreases for South Carolina, Horry County Schools, and the Georgetown County School District were 27%, 23%, and 36%, respectively.

These performances might suggest that strong intervention is needed to improve science education in South Carolina as the state prepares to play a major role in science, technology, engineering, and mathematics (STEM) education.

Figure 5.1: Science performance benchmarks—SCPASS by SC, HCS, and GCSD: 2011, 2016, and 2017



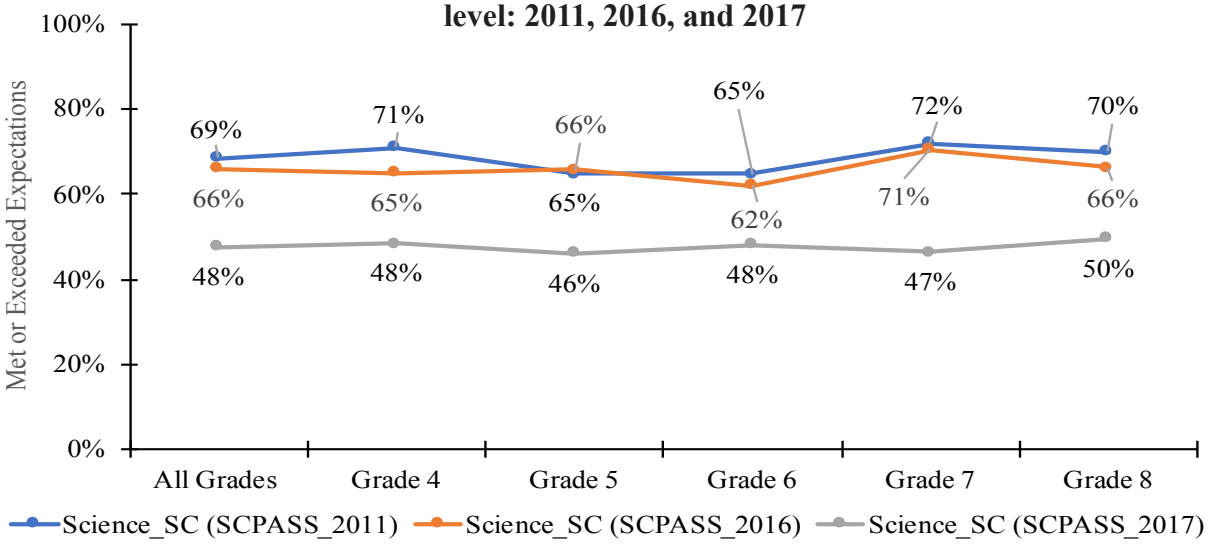
Source: South Carolina Department of Education

*Average percentage of all grades tested in elementary and middle schools

5.3 SC: Science Benchmarks by Grade Level and Demographics

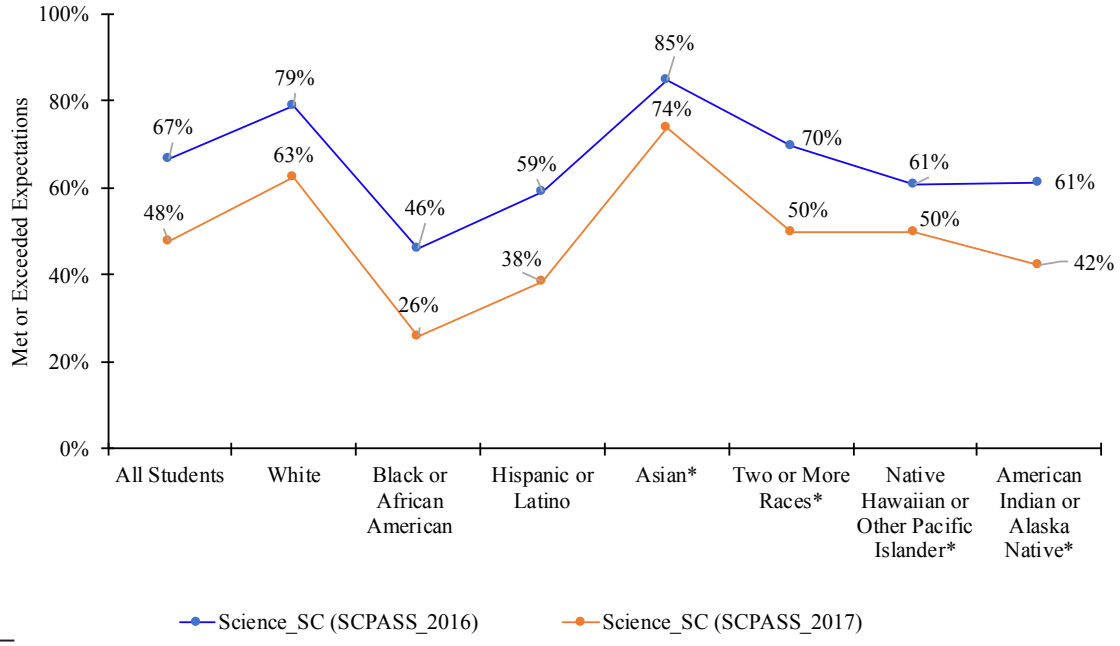
The graph (Figure 5.2) shows the percentage distribution of students meeting or exceeding science benchmarks by demographics. Although the overall performance (Figure 5.2) was somewhat stable, there was a significant decrease from 2016 to 2017, including all demographic groups (Figure 5.3). The percentage of meeting or exceeding science benchmark was down by 27% from 2016 to 2017 (Figure 5.3). Black students experienced the largest percentage decrease (43%). Asian students experienced the smallest percentage decrease (13%). If this trend continues for 2018, there might be an underlying problem that will require root cause analyses and solutions.

Figure 5.2: Science performance benchmark—SCPASS by grade level: 2011, 2016, and 2017



Source: South Carolina Department of Education

Figure 5.3: Science performance benchmark—SCPASS by demographics: 2016 and 2017



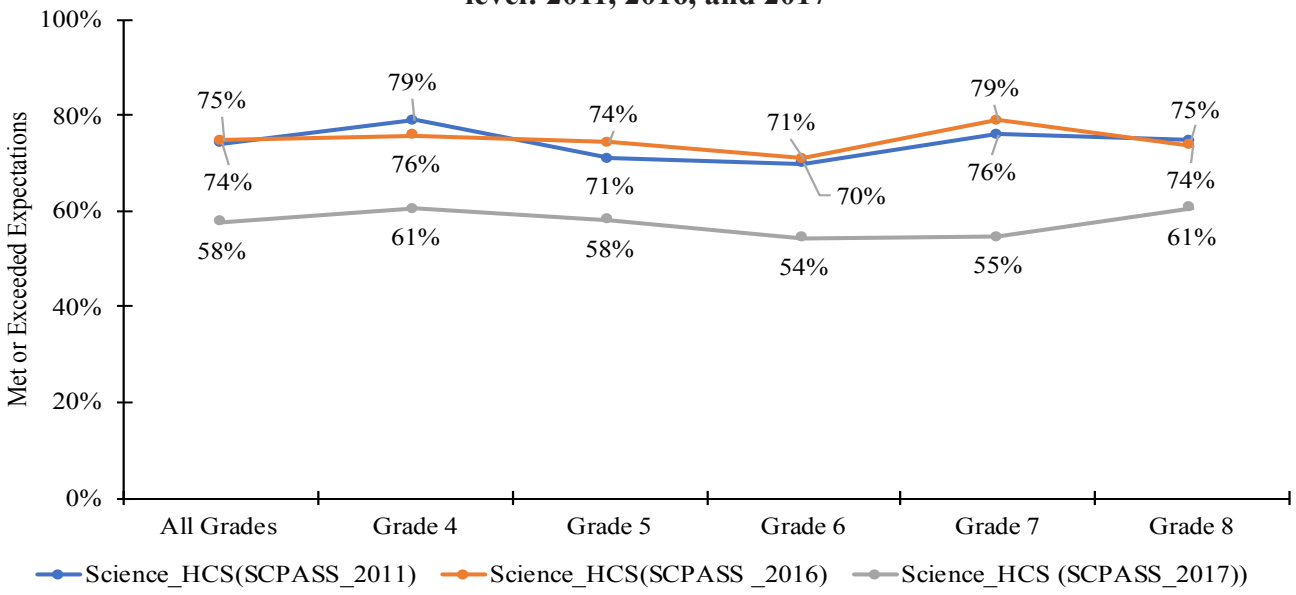
*When percentage is small, this group is combined with "Other."

Source: South Carolina Department of Education the

5.4 HCS: Science Benchmarks by Grade Level and Trend

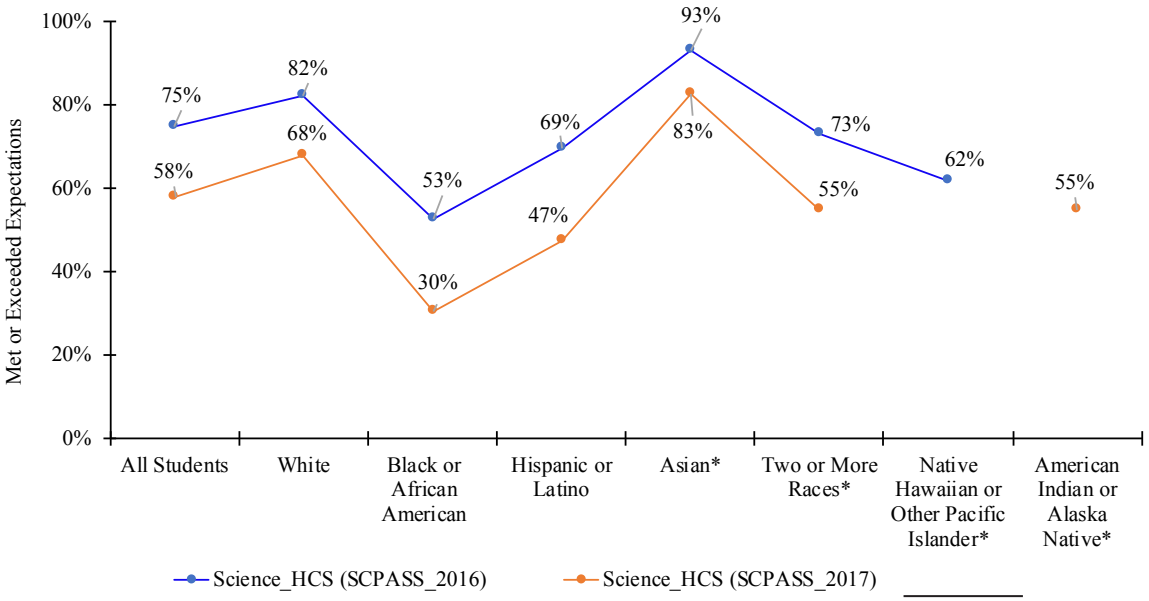
The graph (Figure 5.4) shows the percentage distribution of Horry County students that met or exceeded the science benchmark by grade level. As indicated in the graph for 2016 (Figure 5.5), performance plummeted (22%) from 2016 to 2017. In Figure 5.5, the performance benchmarks are depicted by race/ethnicity for the all grades combined. All groups experienced a decrease in performance benchmarks, from about 11% to 44% for all racial/ethnic groups. Asians experienced the smallest decrease (11%).

Figure 5.4: Science performance benchmark (HCS)—SCPASS by grade level: 2011, 2016, and 2017



Source: South Carolina Department of Education

Figure 5.5: Science performance benchmark (HCS)—SCPASS by demographics: 2016 and 2017



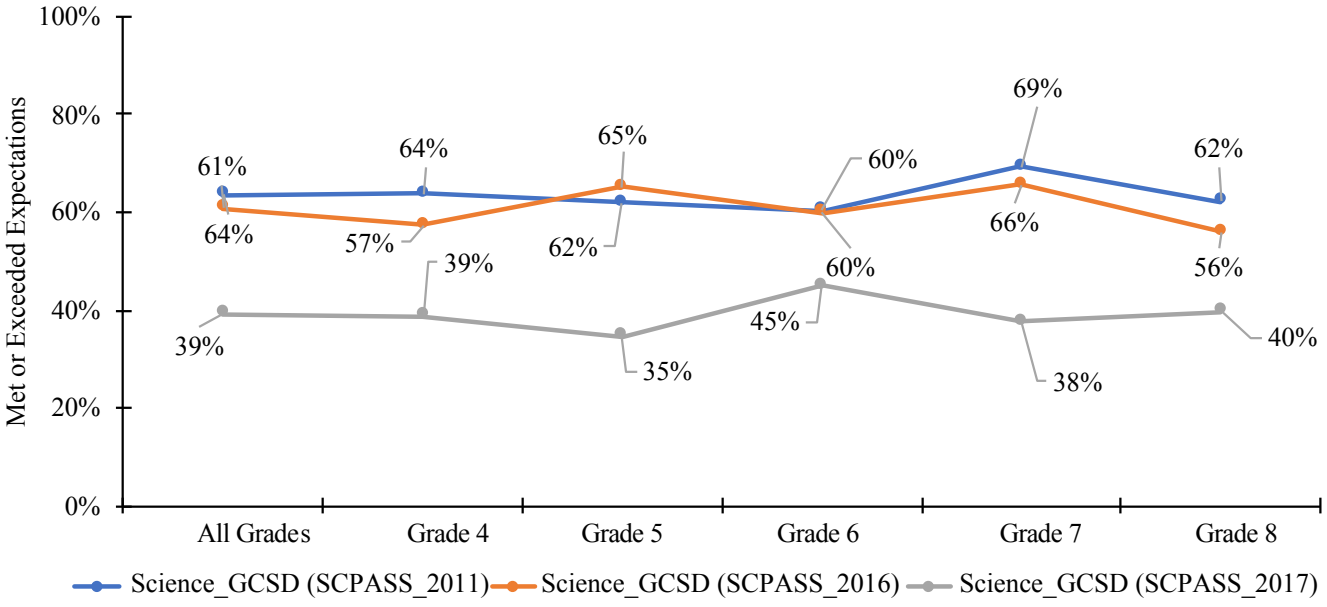
Source: South Carolina Department of Education

*When percentage is small, this group is combined with "Other."

5.5 GCSD: Science Benchmarks by Grade Level and Demographics

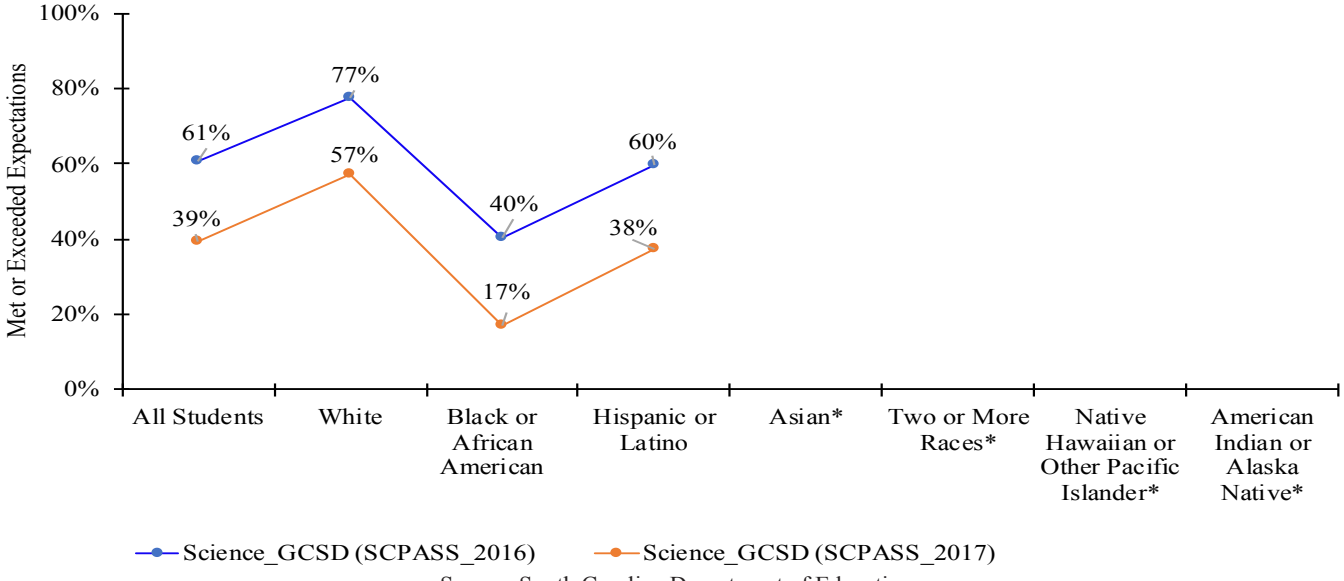
The graph (Figure 5.6) shows the percentage distribution of students meeting or exceeding the science benchmark by demographics. There is a significant decrease in the percentages of students meeting or exceeding benchmarks from 2016 to 2017 of 36% for the combined grade levels and demographic groups. In Figure 5.7, African-Americans experienced the largest decrease of 58% from 2016 to 2017. If the total number of test takers was less than 10, no data are shown.

Figure 5.6: Science performance benchmark (GCSD)—SCPASS by grade level: 2016 and 2017



Source: South Carolina Department of Education

Figure 5.7: Science performance benchmark (GCSD)—SCPASS by demographics: 2016 and 2017



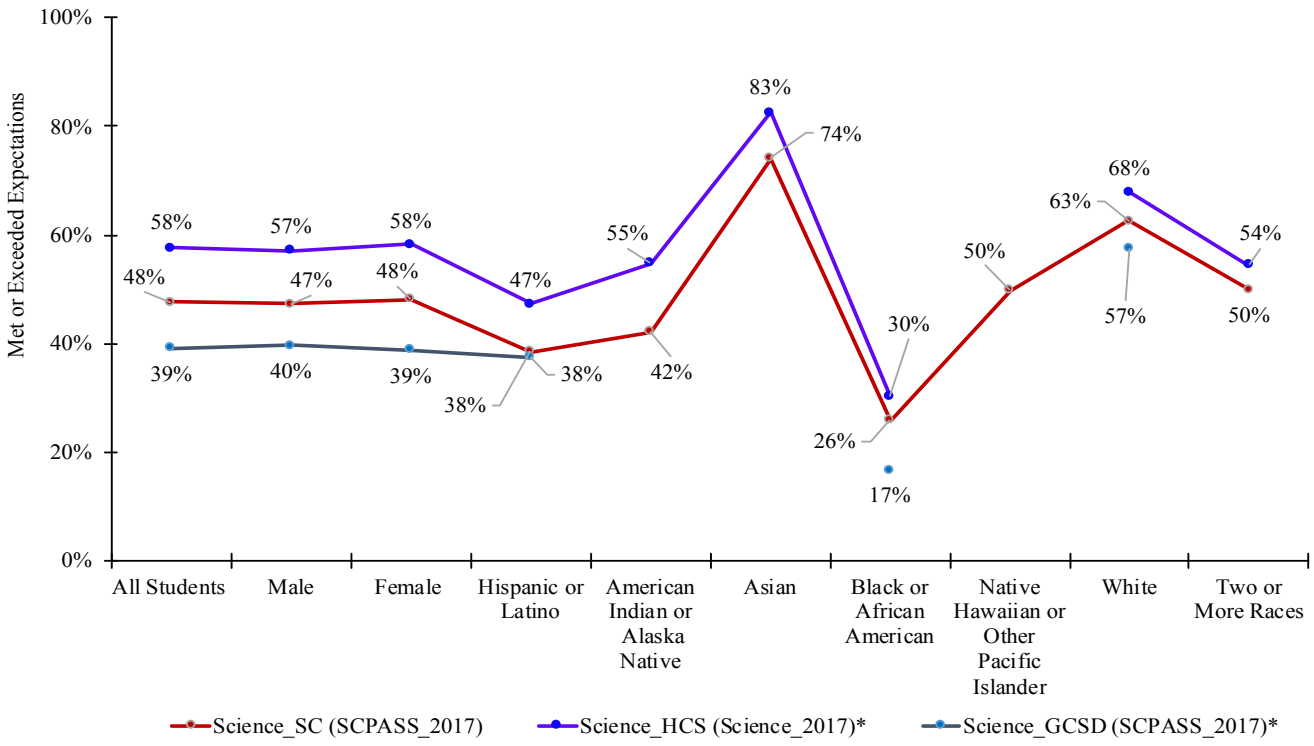
Source: South Carolina Department of Education

*If the number of test takers is less than 10, percentage is not calculated.

5.6 Comparison of Science Benchmarks Among SC, HCS, and GCSD Students

The graph (Figure 5.8) shows the percentage comparison distribution of students meeting or exceeding the science benchmarks by student demographics for South Carolina, Horry County Schools, and the Georgetown County School District. Generally, females outperformed males; however, in this situation the difference between the male and female performance benchmarks was less than 0.6% for the three measured entities. Overall, the Horry County Schools performance was higher than those of South Carolina and the Georgetown County School District by 19% and 39%, respectively.

Figure 5.8: Science benchmark comparison (SC, HCS, and GCSD)—SCPASS by student demographics: 2017



Source: South Carolina Department of Education

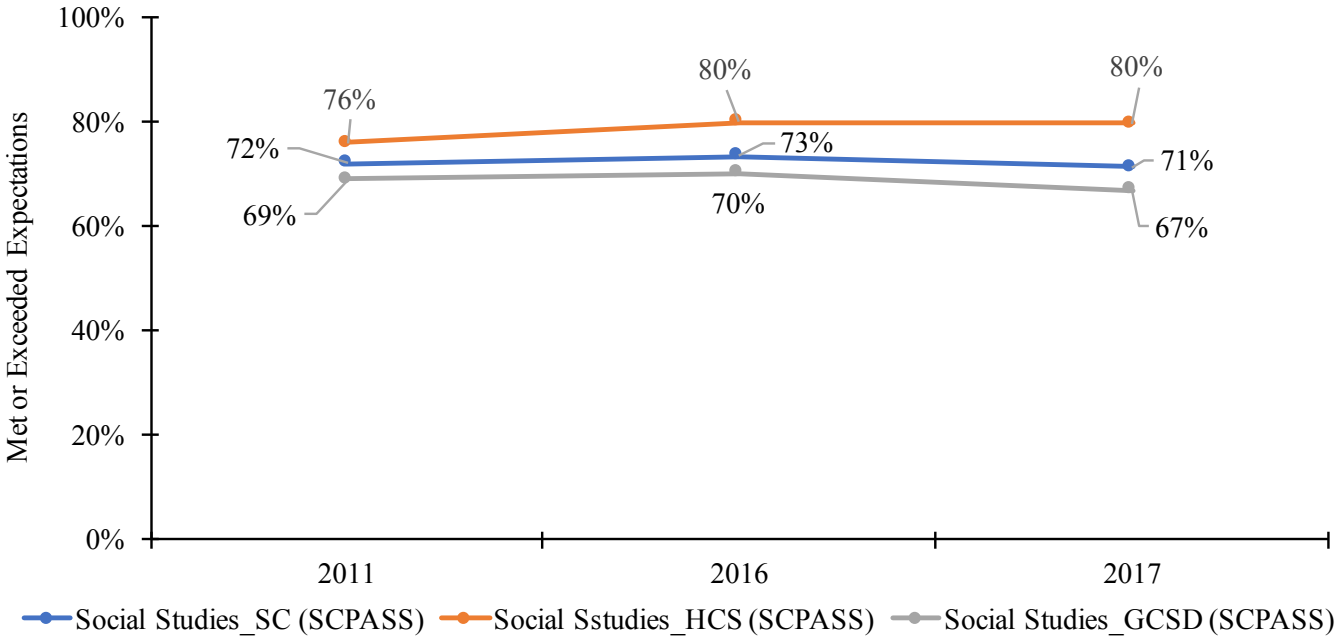
*A discontinuous line on the graph is the results of less than 10 test takers for that group; therefore, the percentage is not calculated. For example, there is not a line for GCSD from Hispanic to Black students because there is no American Indians or Asians listed for GCSD or Native Hawaiian or Other Pacific Islander after Black students

6.1 SCPASS Performance Trends in Social Studies Among SC, HCS, and GCSD

The graph (Figure 6.1) illustrates the performance pattern among South Carolina (SC), Horry County Schools (HCS), and the Georgetown County School District (GCSD), respectively. The profile exhibits an overall parallel pattern (Figure 6.1). The figure includes percentages of students meeting or exceeding Social Studies SCPASS benchmarks in 2011, 2016, and 2017, respectively. The percentage of students who met or exceeded the benchmark experienced a rather flat performance from 2016 to 2017. In 2011, HCS performance was higher for the state by 5.4%, and in 2017, HCS performance was higher than for state by 12%. In 2011, state was higher for the GCSD by 4.3%, and in 2017, state performance was slightly up to 5.8% over GCSD performance.

As a friendly reminder to the reader, all percentages are based on the individual populations and subpopulations as applicable.

Figure 6.1: Social studies performance benchmarks (SC, HCS, and GCSD)—SCPASS for state and district: 2011, 2016, and 2017

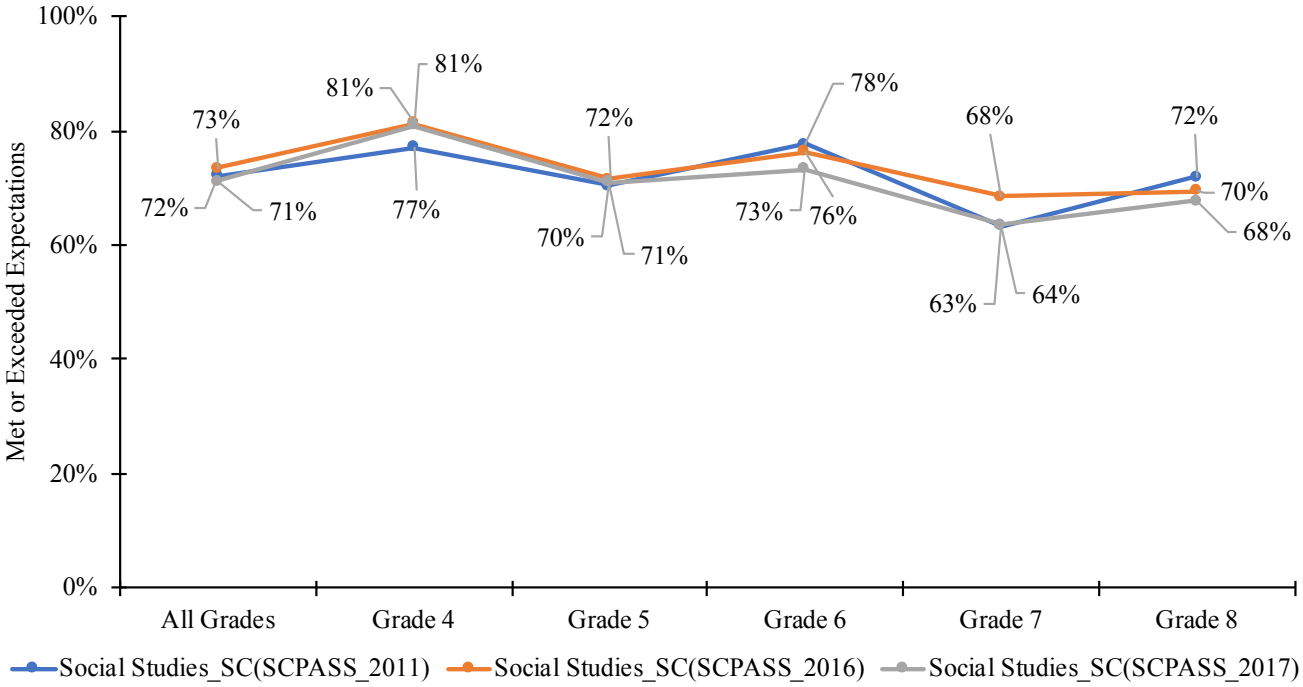


Source: South Carolina Department of Education

6.2 SC: Social Studies Benchmark Performance

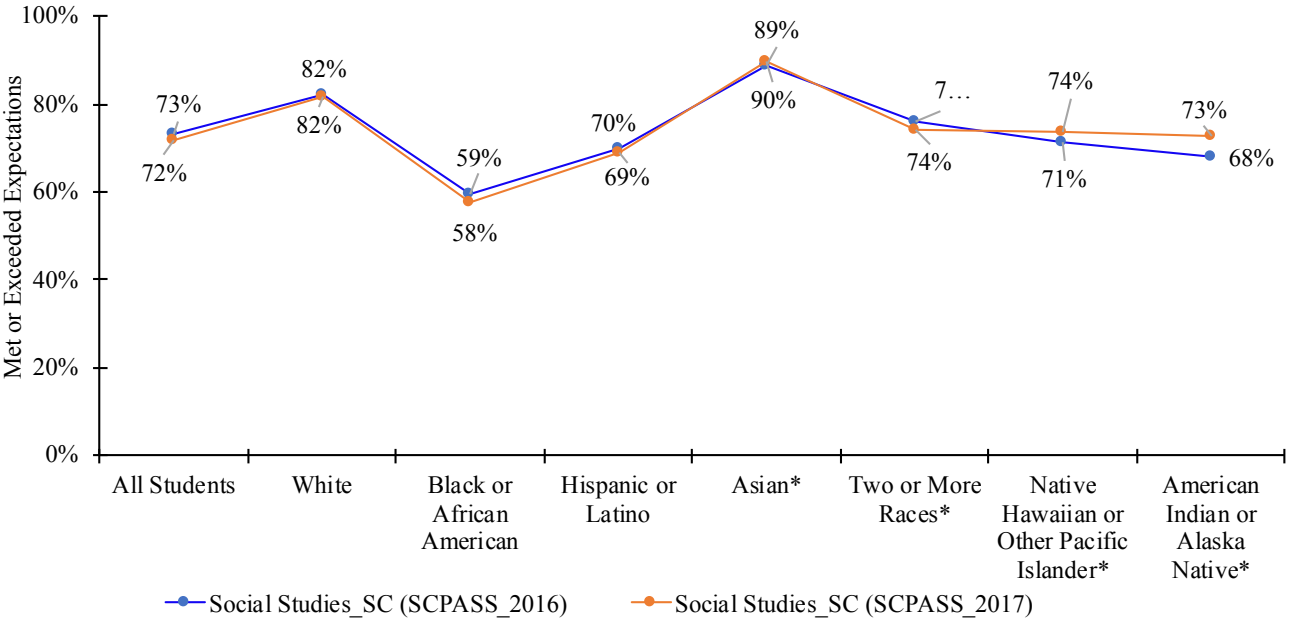
Figure 6.2 depicts a benchmark profile by grade level for 2011, 2016, and 2017. There are a few bounces, but the results are less volatile than science benchmarks for the same period (Figures 5.2 and 5.3).

Figure 6.2: Social studies performance benchmarks (SC)—SCPASS by grade level: 2011, 2016, and 2017



Source: South Carolina Department of Education

Figure 6.3: Social studies performance benchmark (SC)—SCPASS by student demographics: 2016, and 2017

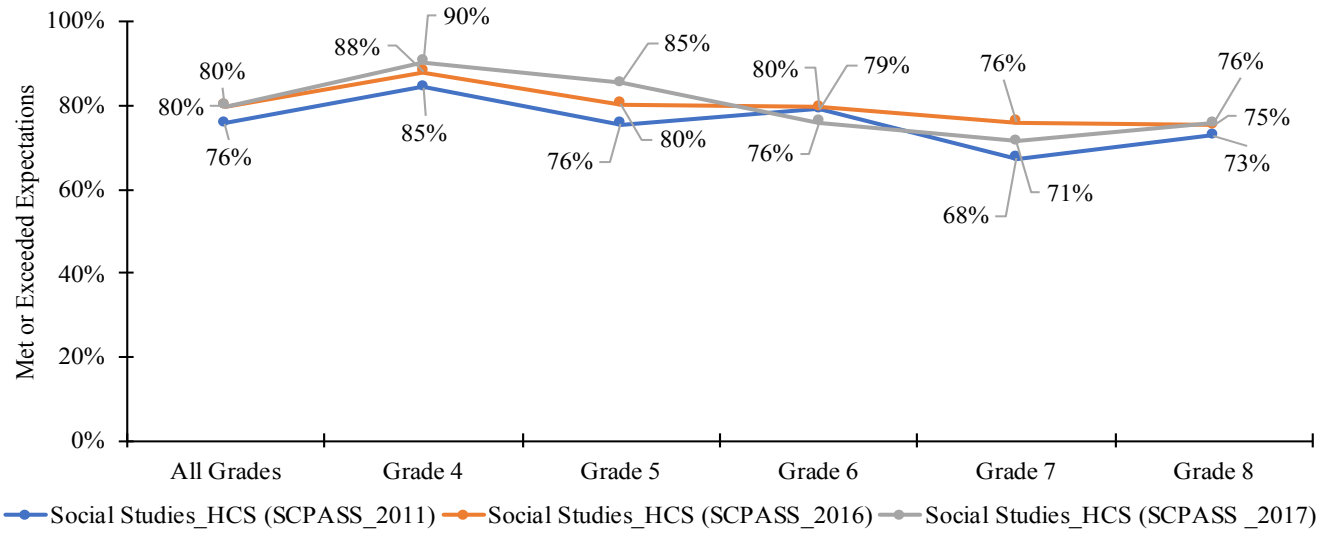


Source: South Carolina Department of Education

6.3 HCS: Social Studies Benchmark Performance

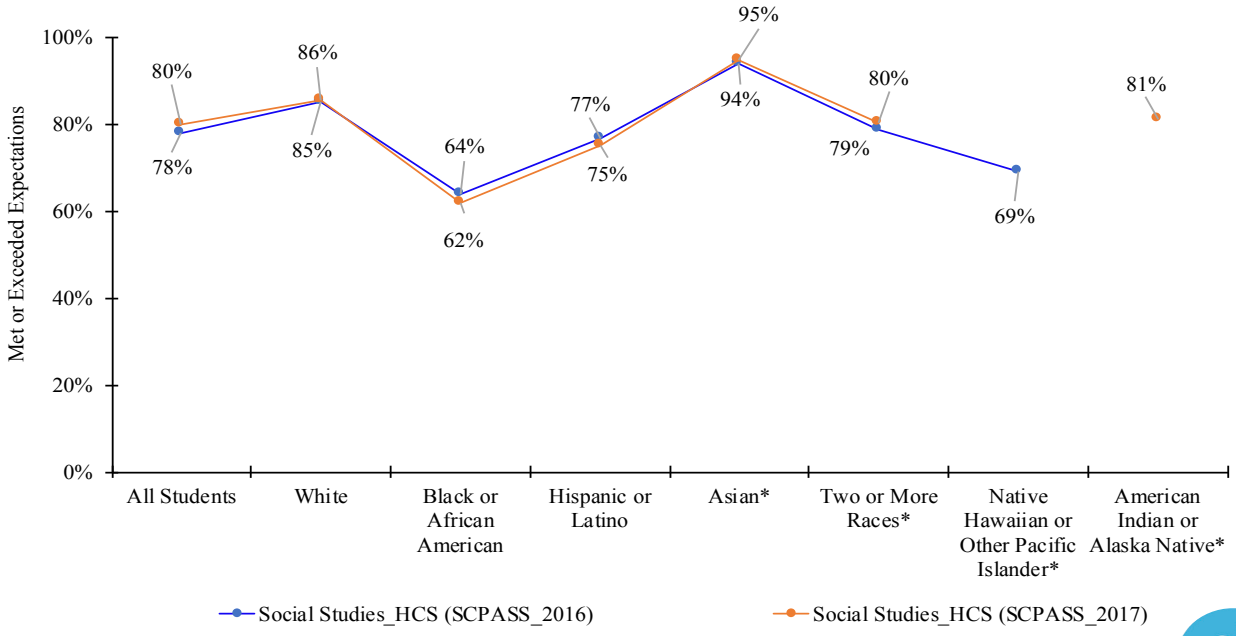
The graph (Figure 6.4) shows the percentage distribution of Horry County students that met or exceeded the science benchmark by grade level. As indicated in the graph for 2016 (Figure 6.4) the performance remained rather stable across grade levels, with fourth grade outperforming all other grades on average. The overall performance between fourth grade and eighth grade is about 15%. This means that 15% more of fourth graders are performing 15% higher in social studies than eighth graders. Figure 6.5 depicts the percentage who met or exceeded benchmark by race/ethnicity. Overall performance from 2016 to 2017 was slightly down by about 3%.

Figure 6.4: Social studies performance benchmark (HCS)—SCPASS by grade level: 2011, 2016, and 2017



Source: South Carolina Department of Education

Figure 6.5: Social studies performance benchmarks (HCS)—SCPASS by student demographics: 2016 and 2017

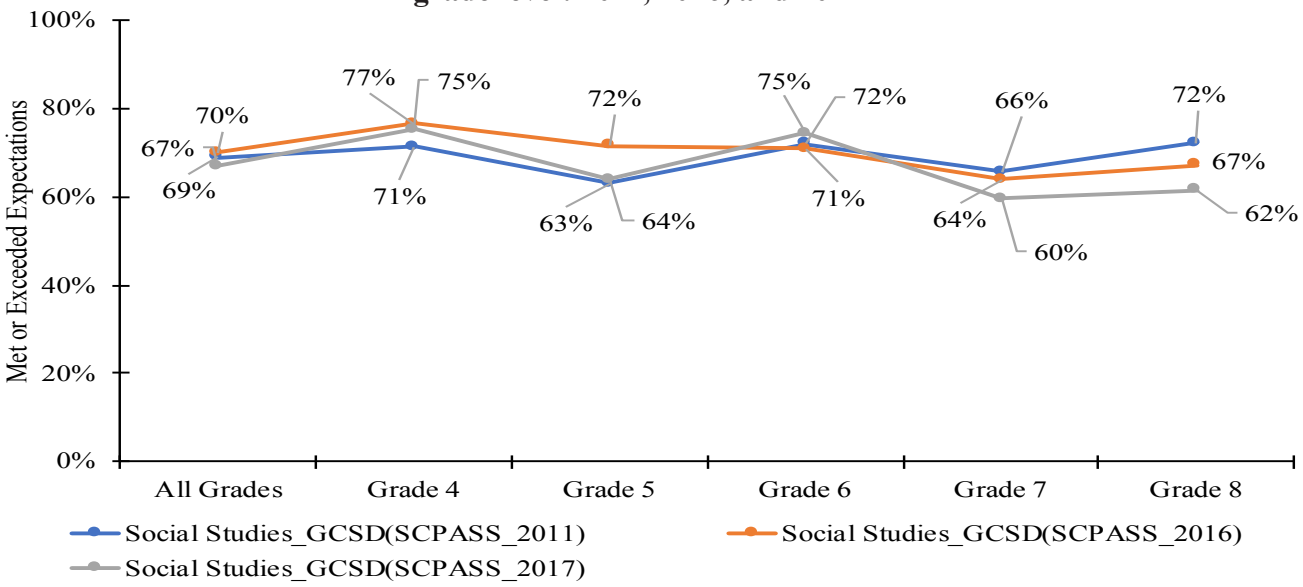


Source: South Carolina Department of Education

6.4 GCSD: Social Studies Benchmark Performance

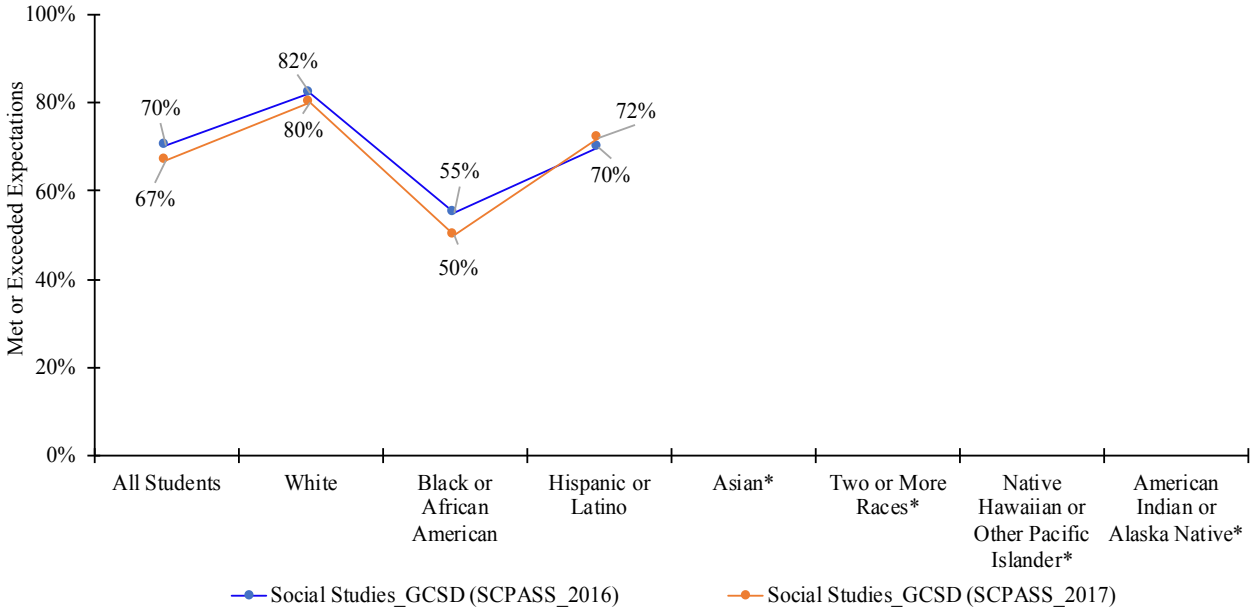
The graph in Figure 6.6 depicts the percentage distribution of Georgetown County School District students that met or exceeded the science benchmark by grade level. The performance for all students remained rather flat for 2011, 2016, and 2017. However, the percentage meeting or exceeding the benchmark was down by about 4% from 2016 to 2017 (Figure 6.7). Percentages are not shown for groups of test takers with fewer than 10 students (Figure 6.7).

Figure 6.6: Social studies performance benchmark (GCSD)—SCPASS by grade level: 2011, 2016, and 2017



Source: South Carolina Department of Education

Figure 6.7: Social studies performance benchmark (GCSD)—SCPASS by student demographics: 2016 and 2017



Source: South Carolina Department of Education

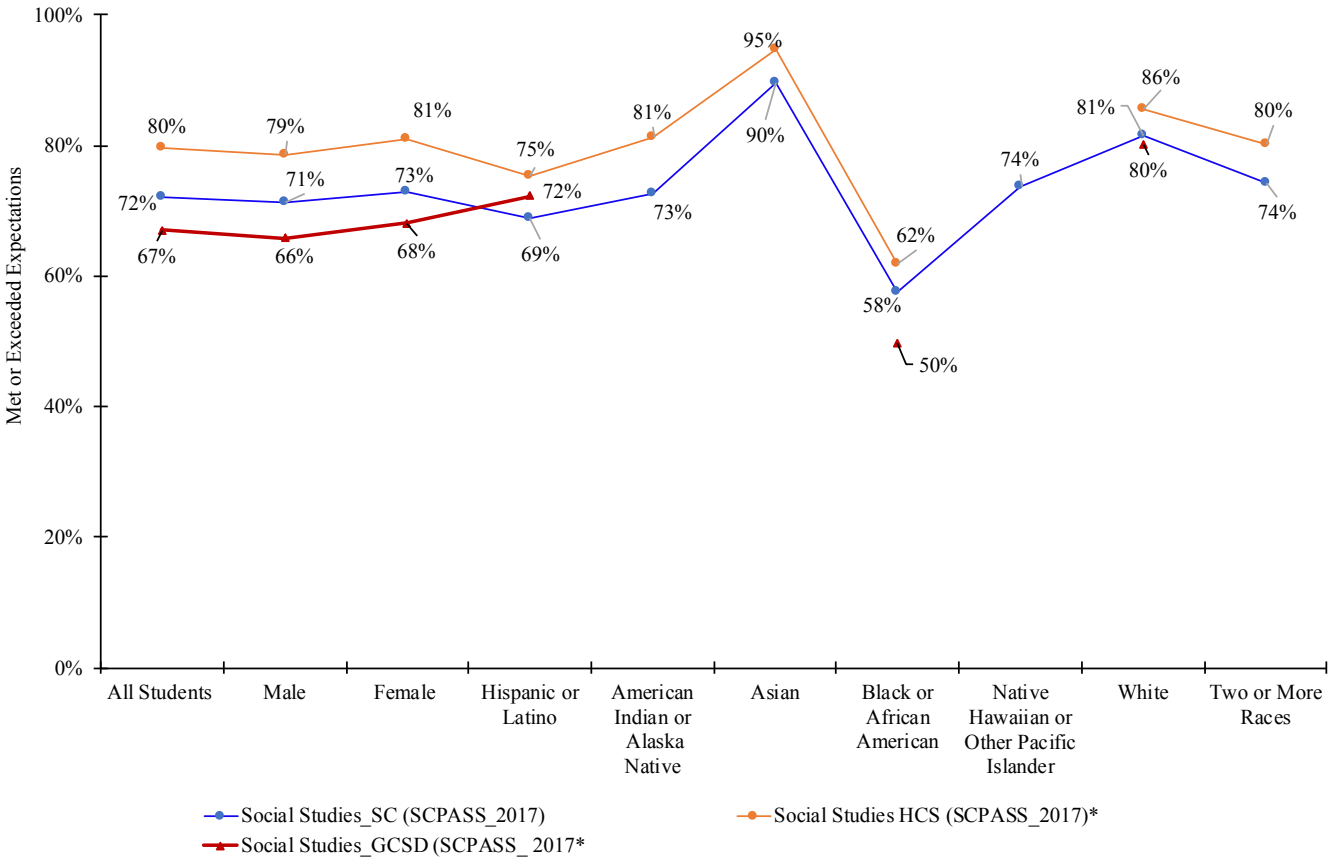
*If the number of test takers is less than 10, percentage is not calculated.

6.5 Comparison of Social Studies Benchmark Among SC, HCS, and GCSD

The graph (Figure 6.8) shows the percentage comparative distribution of students meeting or exceeding the science benchmark by student demographics for South Carolina, Horry County Schools, and the Georgetown County School District. The percentage difference in performance between HCS and SC is about 11% in favor of HCS. The difference in GCSD and SC is about 7% in favor of the state. The overall percentage of students who met or exceeded expectations is larger between HCS and GCSD and is about 18% in favor of HCS.

The profile follows parallel pattern with the exception that GCSD Hispanic student's performance exceeded South Carolina's performance, crossing the parallel line at 72%.

Figure 6.8: Comparison of social studies performance benchmark for SC, HCS, and GCSD—SCPASS by student demographics, 2017*



Source: South Carolina Department of Education

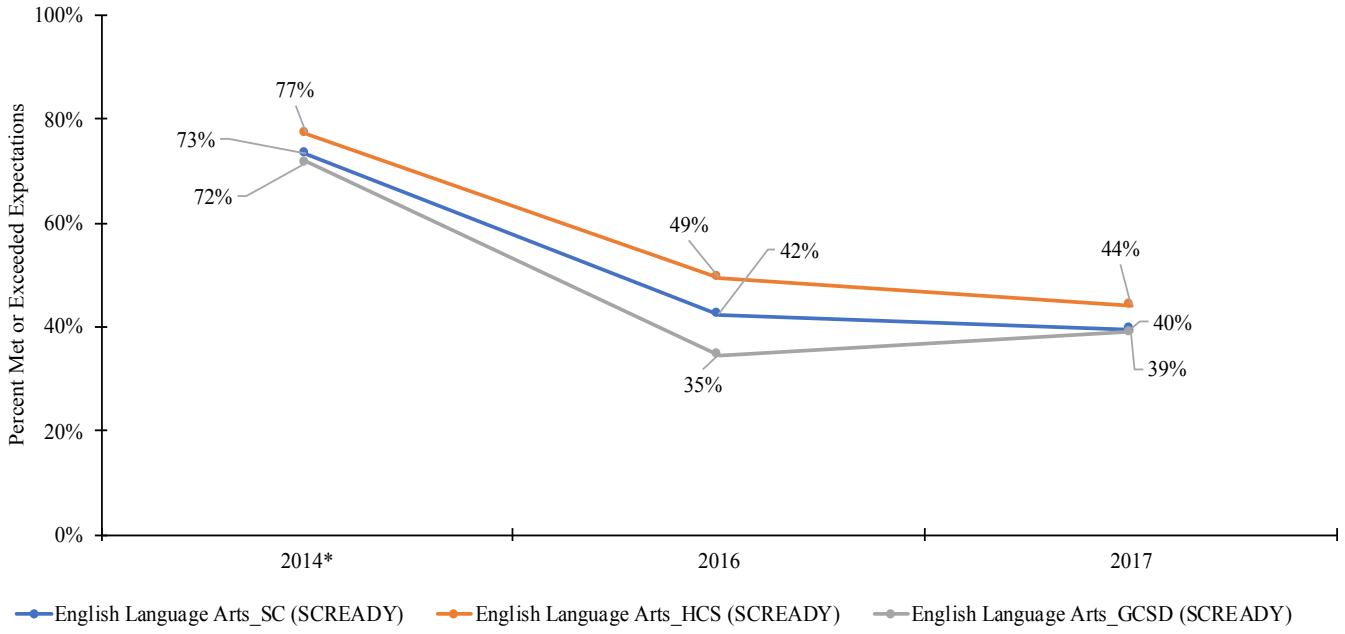
*If the number of test takers is less than 10, percentage is not calculated.

7.1 Performance Trends in English Language Arts Among SC, HCS, and GCSD

The graph (Figure 7.1) illustrates the performance pattern of students among South Carolina (SC), Horry County Schools (HCS), and the Georgetown County School District (GCSD), respectively. The figure includes percentages of students meeting or exceeding the English language arts SCREADY benchmark in 2014, 2016, and 2017, respectively. In 2014, this test was administered by SCPASS, and starting since 2015, it has been continuously administered under the SCREADY testing program. The percentage of students who met or exceeded the benchmark is significantly down from the discontinued SCPASS test for the subject. From 2014 through 2017, the percentages meeting benchmarks among SC, HCS, and GCSD were down by 58%, 55%, and 60%, respectively. However, the GCSD percentage meeting or exceeding the benchmark standard increased from 2016 to 2017 by 11%. See Figure 7.1.

Please note that the percent not meeting or exceeding the benchmark is the complement of the percent that met the benchmark.

Figure 7.1: English language arts benchmark: SC, HCS, and GCSD—SCREADY 2014, 2016, and 2017



Number of students tested: 2014: n = 35,997 2016: n = 56433 2017: n = 60,265

Source: South Carolina Department of Education

*This test was administered by SCPASS in 2014 and has since been administered by SCREADY, starting in 2016. In the interest of consistency in the legend, SCREADY is used for 2014.

7.2 SC: English Language Arts Benchmark Performance

Figure 7.2 profiles benchmark performance by grade level for the school years ending in 2014, 2016, and 2017. There was a significant decrease (45%) in performance when the test started being administered under the SCREADY testing program in 2016. As expected, from 2016 to 2017, the decrease was significantly less (5%); however, the difference from 2016 to 2017 is statistically significant. See Figures 7.2 and 7.3.

Figure 7.2: English language arts: SC benchmark—SCPASS by grade level—2014, 2016, and 2017*

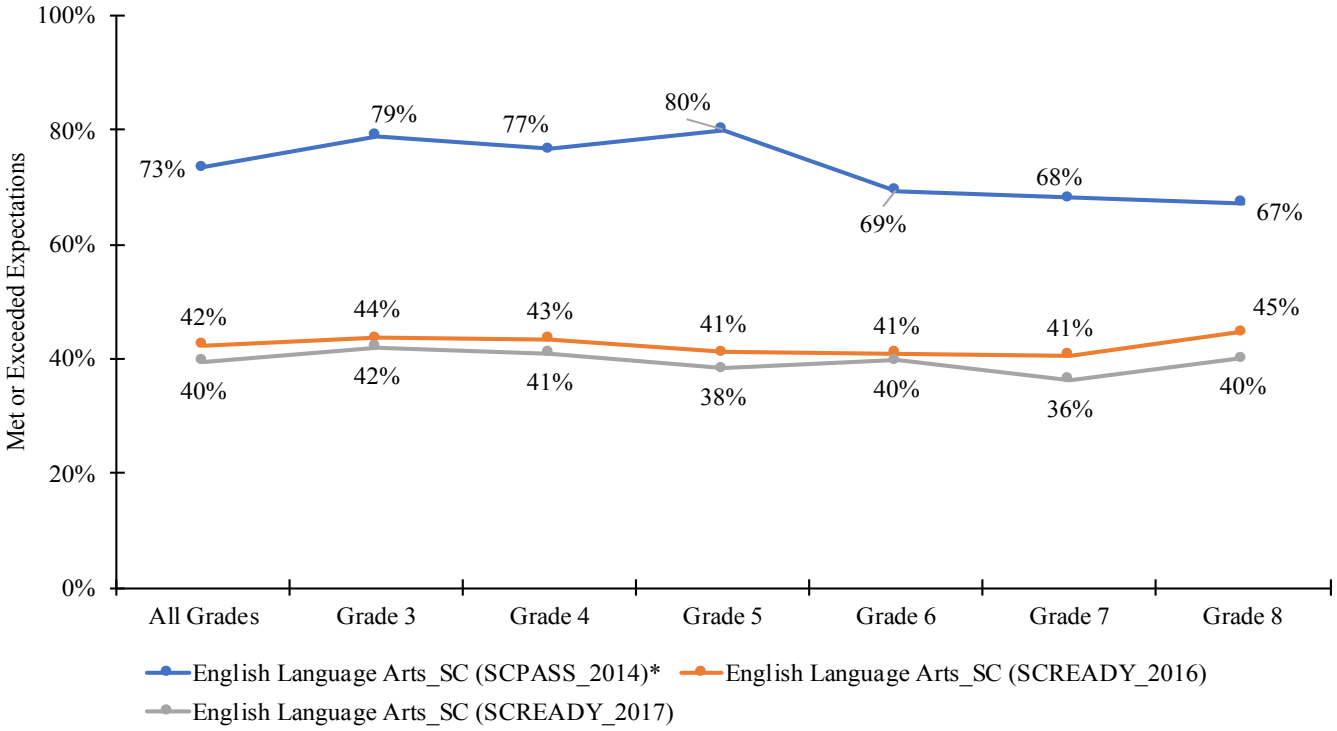
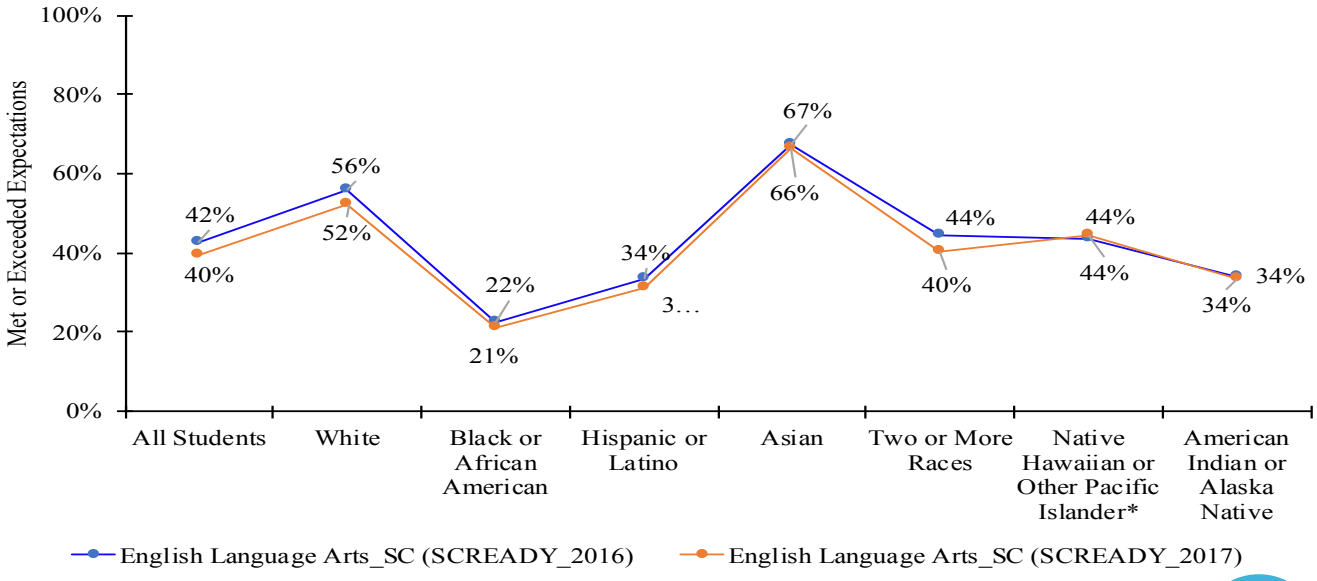


Figure 7.3: English language arts: SC benchmark—SCREADY by student demographics—2016 and 2017*

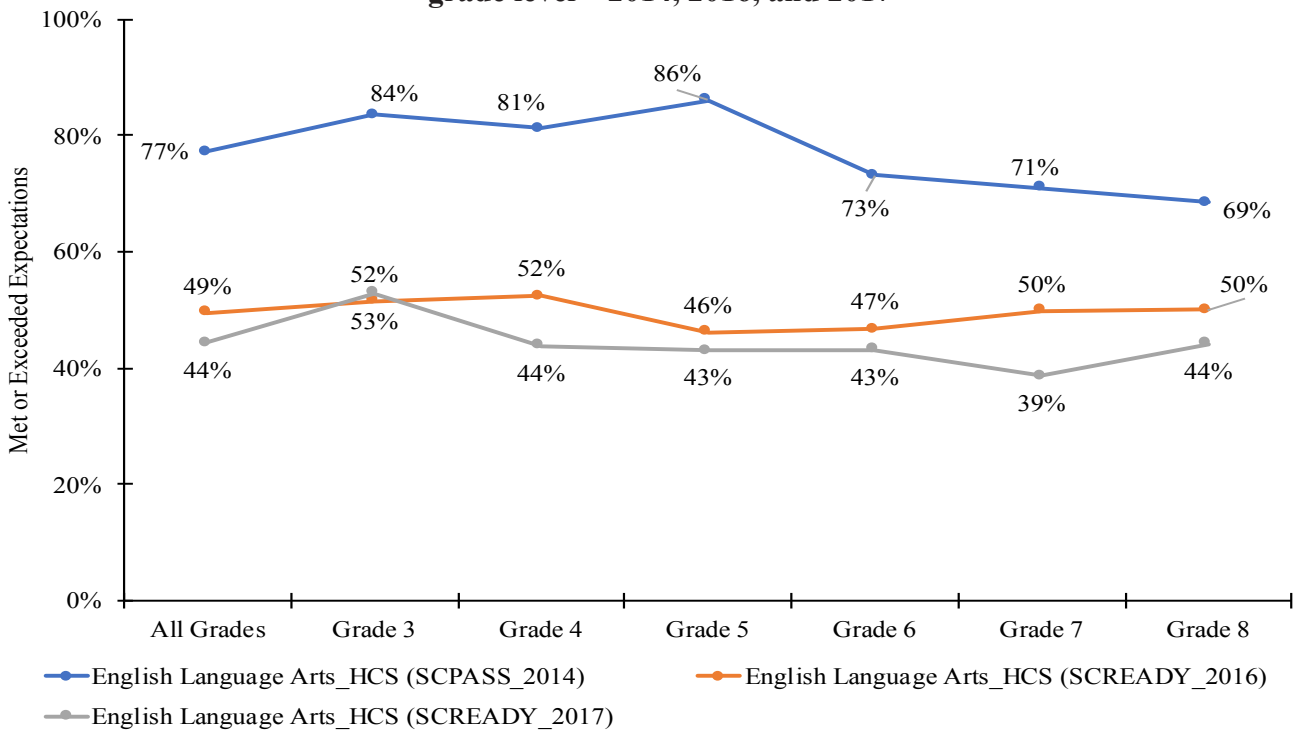


*Source: South Carolina Department of Education

7.3 HCS: English Language Arts Benchmark Performance

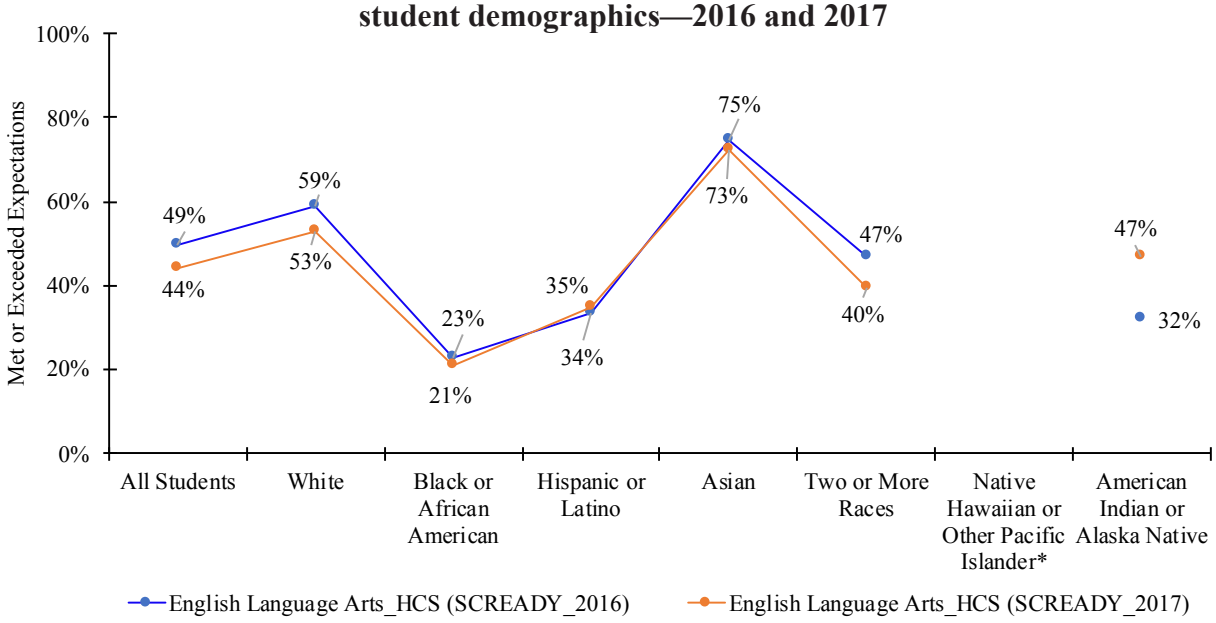
Figure 7.4 depicts benchmark performance by grade level for 2014, 2016, and 2017. There was a significant decrease (36%) in meeting benchmark performance when the test started being administered under the SCREADY testing program in 2016. Figure 7.5 shows that the decrease in meeting benchmark is smaller (10%) from 2016 to 2017, but statistically significant.

Figure 7.4: English language arts: HCS benchmark—SCREADY by grade level—2014, 2016, and 2017



Source: South Carolina Department of Education

Figure 7.5: English language arts: HCS benchmark—SCREADY by student demographics—2016 and 2017



Source: South Carolina Department of Education

*If the number of test takers is less than 10, a percentage is not calculated.

7.4 GCSD: English Language Arts Benchmark Performance

Figure 7.6 depicts benchmark performance by grade level for 2014, 2016, and 2017. There was a significant decrease (57%) in meeting the performance benchmark when the test started being administered under the SCREADY program in 2016. Figure 7.7 shows an overall decrease (10%) from 2016 to 2017 in meeting the benchmark. However, this decrease is statistically significant.

Figure 7.6: English language arts: GCSD benchmark—SCREADY by grade level—2014: 2016 and 2017†

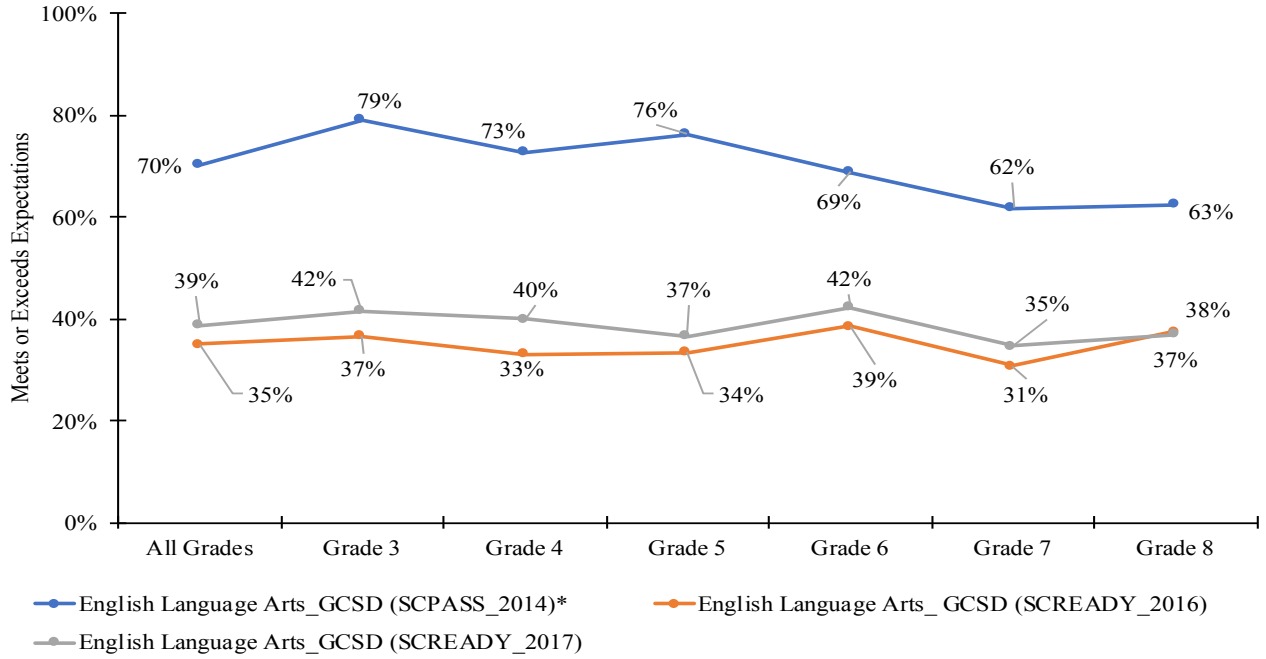
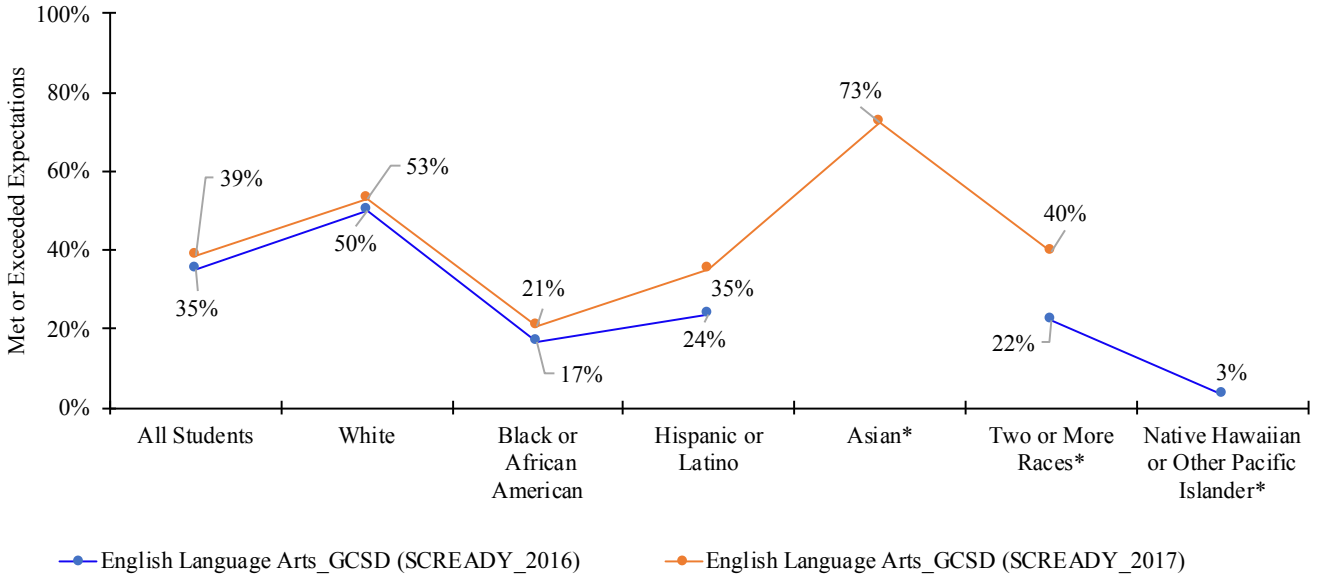


Figure 7.7: English language arts: GCSD benchmark—SCREADY by student demographics—2016 and 2017†



†Source: South Carolina Department of Education

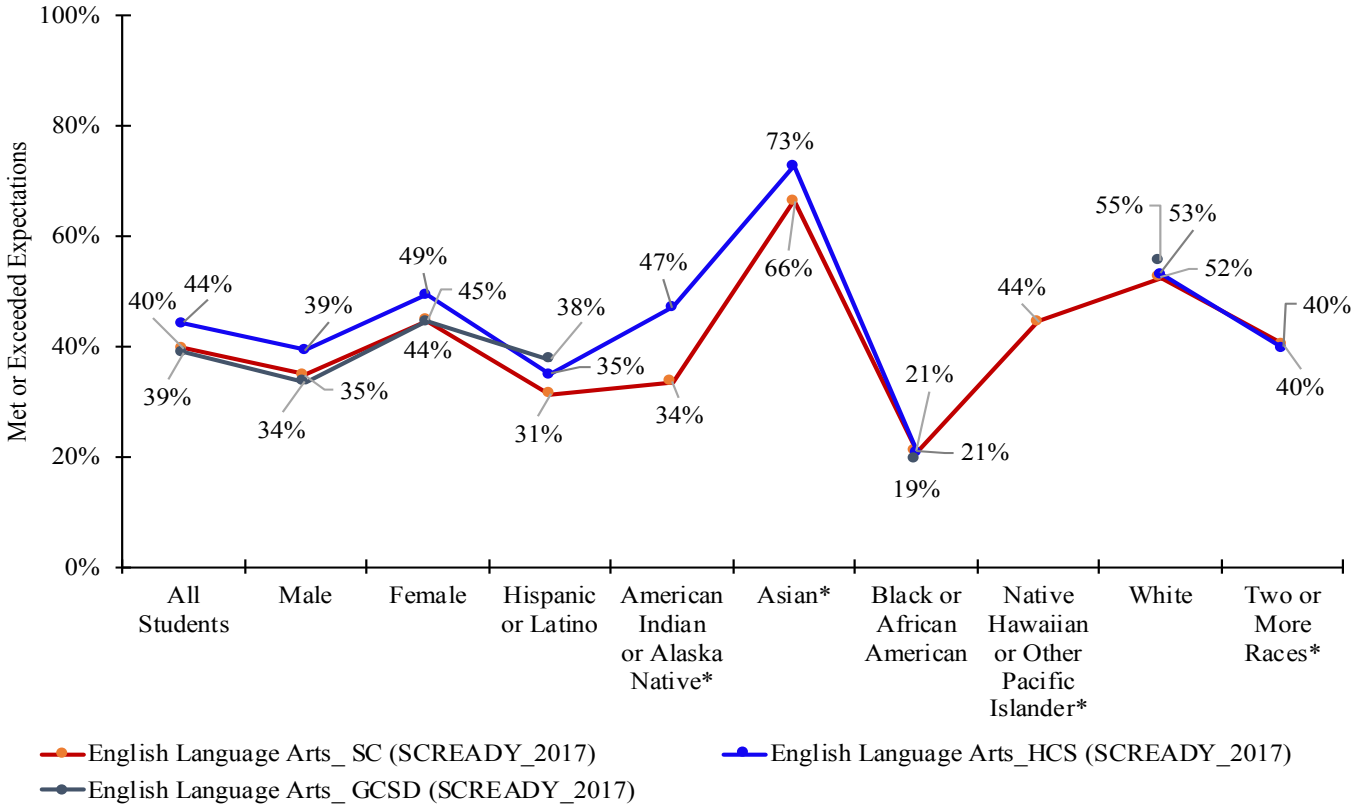
*If the number of test takers is less than 10, a percentage is not calculated.

7.5 Comparison of English Language Arts Benchmark Among SC, HCS, and GCSD

The graph (Figure 7.8) profiles the percentage comparison distribution of students meeting or exceeding English language arts benchmarks by student demographics for South Carolina (SC), Horry County Schools (HCS), and the Georgetown County School District (GCSD). The percentage gap (about 10%) between Horry County Schools and South Carolina is consistent with the district outperforming the state year over year on SCPASS and SCREADY benchmarks. Horry County Schools scored on average about 12% higher than the Georgetown County School District. South Carolina performed about 3% higher than the Georgetown County School District.

Although there were differences in performance levels for the state and districts, each student demographical groups benchmark performance followed the same pattern as that of South Carolina (Figure 7.8). This implies that the performance pattern of the majority of demographic groups in every public school in the state of South Carolina will look like the graph in Figure 7.8. Asian students performed better than any other group, which is consistent not only in South Carolina but also nationally.

Figure 7.8: English language arts comparison of benchmark met or exceeded expectations for SC, HCS, and GCSD—SCREADY by student demographics—2017



Source: South Carolina Department of Education

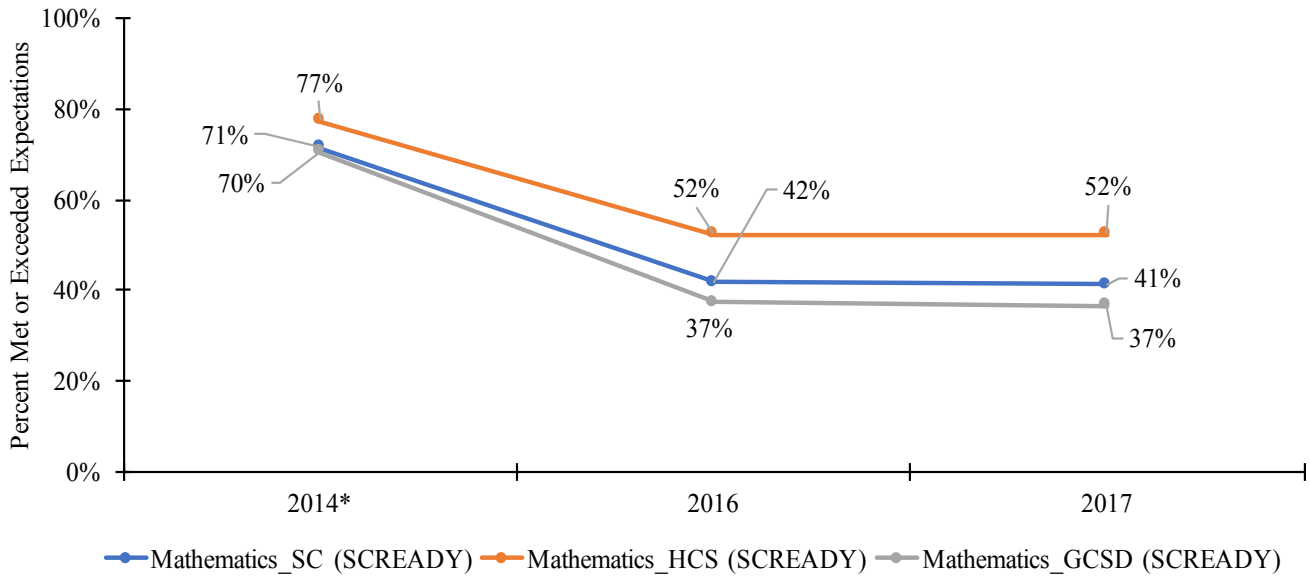
*A discontinuous line on the graph is the result of fewer than 10 test takers for that group; therefore, the percentage is not calculated. For example, there is not a line for GCSD from Hispanic to Black students because there are no American Indians or Asians listed for GCSD or Native Hawaiian or Other Pacific Islander after Black students.

8.1 Performance Trends in Mathematics Among SC, HCS, and GCSD

Figure 8.1 profiles the comparison between SCPASS test results in 2014 and the new replacement SCREADY in 2016 and 2017 for the benchmark in mathematics. The overall profile of performance shows a parallel behavior among the three entities, that is, South Carolina, Horry County Schools, and Georgetown County School District test takers. The percentage of students who met or exceeded the benchmark were significantly down from the discontinued SCPASS Mathematics from 2014 to 2016 for South Carolina (41%), Horry County Schools (33%), and the Georgetown County School District (47%). The change in percentages of meeting or exceeding benchmark performance levels remained unchanged from 2016 to 2017 for Horry County Schools and the Georgetown County School District. This could be an indication that the decrease has bottomed out; therefore, a reversal in the downward trajectory might be in store for 2018.

The parallel pattern of all groups from 2014 through 2017 is a textbook illustration of changes, whereas the local school districts' benchmark pattern is almost identical to that of the state.

Figure 8.1: Mathematics: SC, HCS, and GCSD benchmark—SCREADY—2014, 2016, and 2017

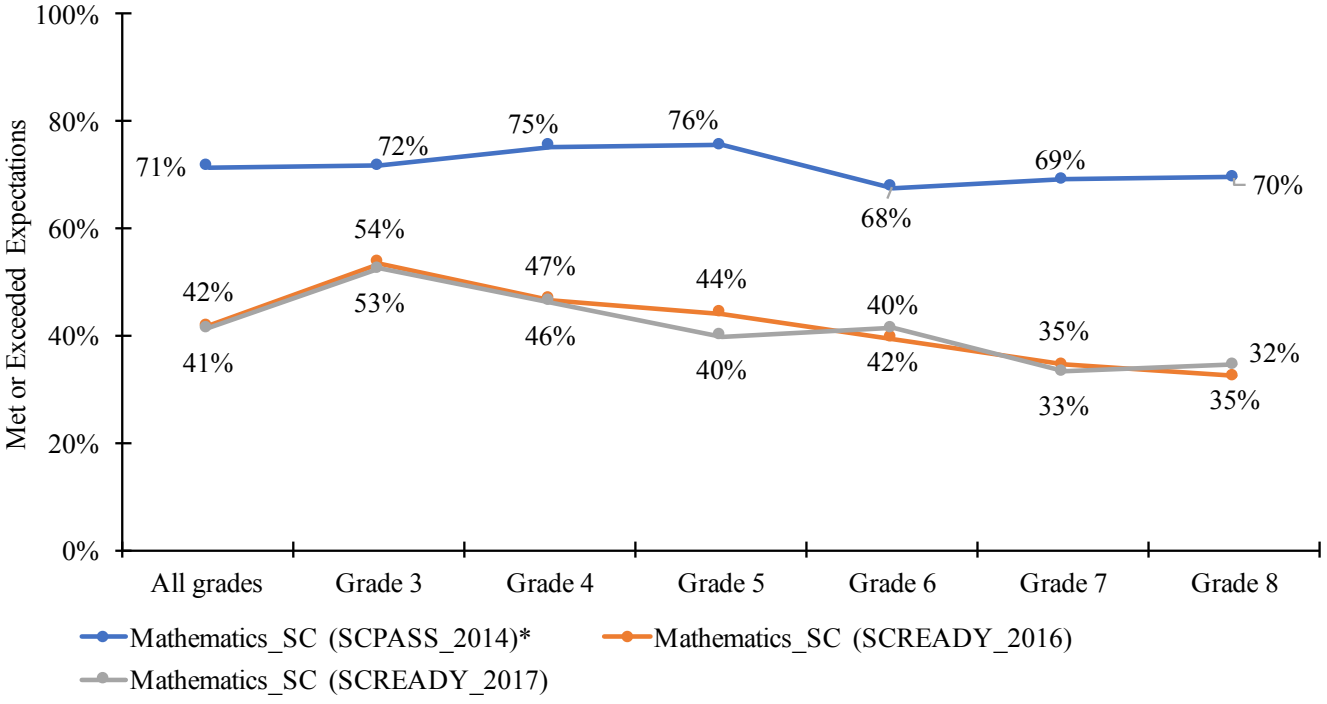


Source: South Carolina Department of Education

8.2 SC: Mathematics Benchmark Performance

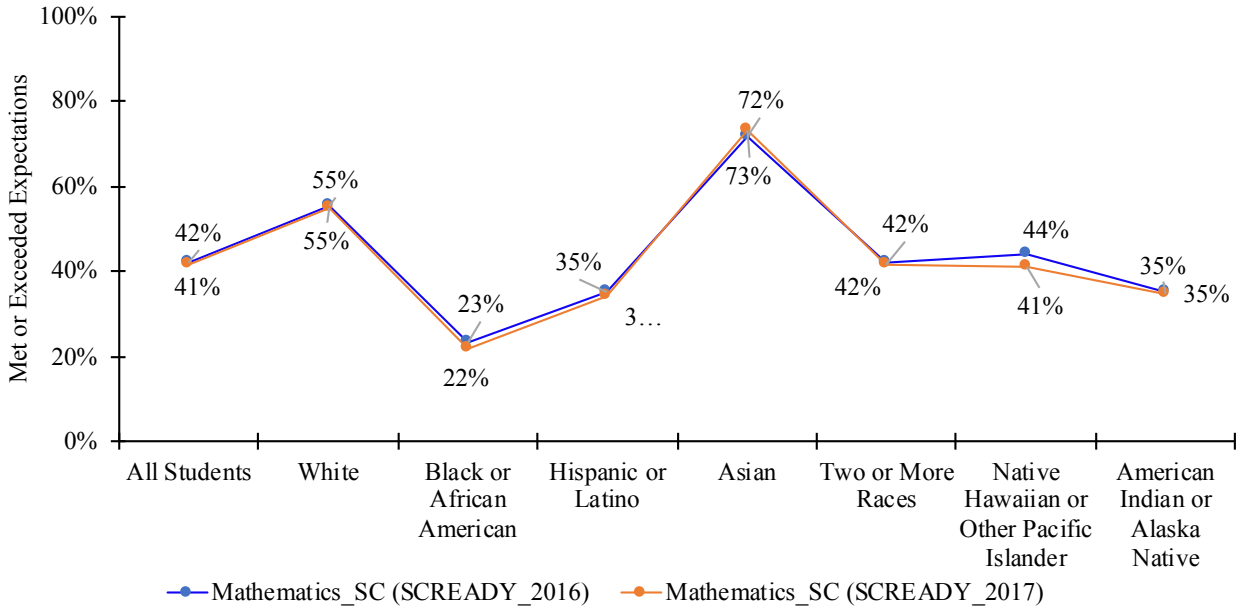
Figure 8.2 depicts benchmark performance by grade level for 2014, 2016, and 2017. There was a significant decrease (41%) in mathematics benchmark performance when the test started being administered under the SCREADY testing program in 2016. The decrease from 2016 to 2017 was rather flat (2%), which is a good indication that improvement might be on the horizon in 2018. The difference between 2016 and 2017 performance is statistically insignificant. See Figure 8.3.

Figure 8.2: Mathematics: SC benchmark—SCREADY by grade level—2014, 2016, and 2017



Source: South Carolina Department of Education

Figure 8.3: Mathematics, SC benchmark—SCREADY by student demographics—2016 and 2017

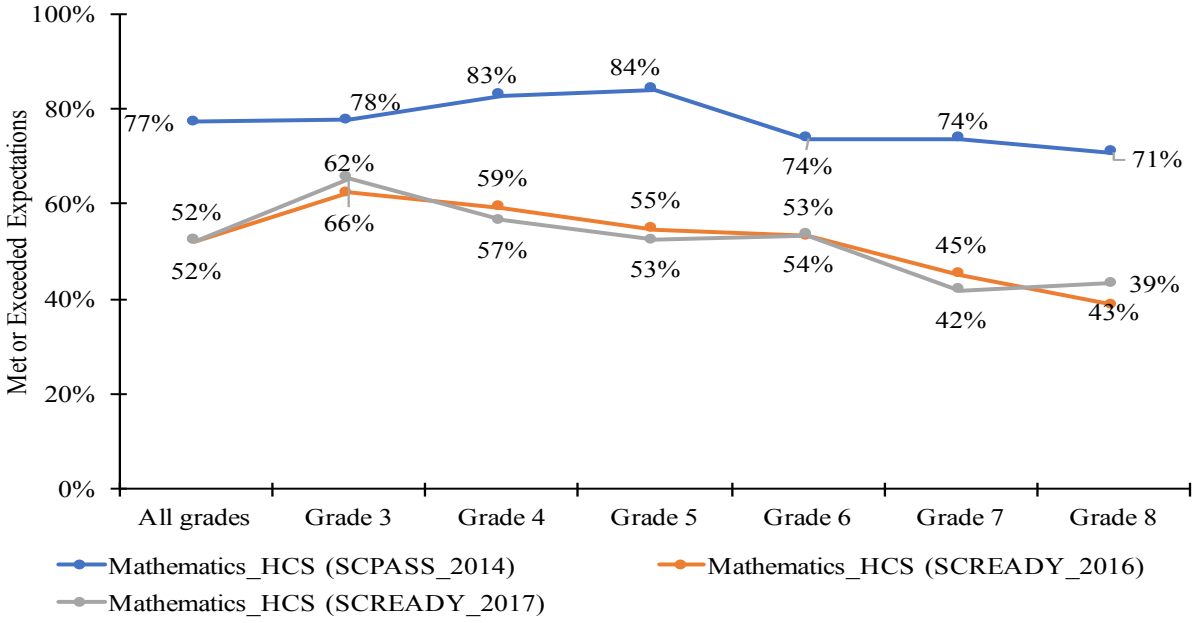


Source: South Carolina Department of Education

8.3 HCS: Mathematics Benchmark Performance

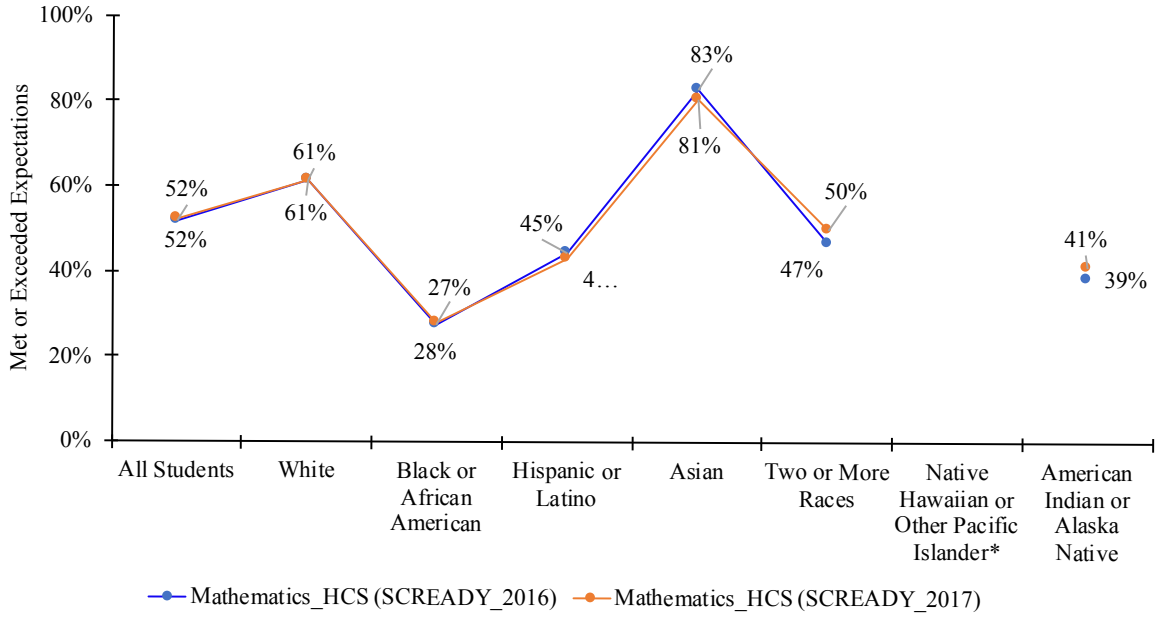
Figure 8.4 depicts benchmark performance by grade level for 2014, 2016, and 2017. There was a significant decrease (33%) in benchmark performance when the test started being administered under the SCREADY testing program. The gap from 2016 through 2017 for all groups is statistically insignificant (Figure 8.5). This is a good indication that the decrease in the HCS benchmark for mathematics might have bottomed out.

Figure 8.4: Mathematics: HCS benchmark—SCREADY by grade level—2014, 2016, and 2017



Source: South Carolina Department of Education

Figure 8.5: Mathematics: HCS benchmark—SCREADY by student demographics—2016 and 2017

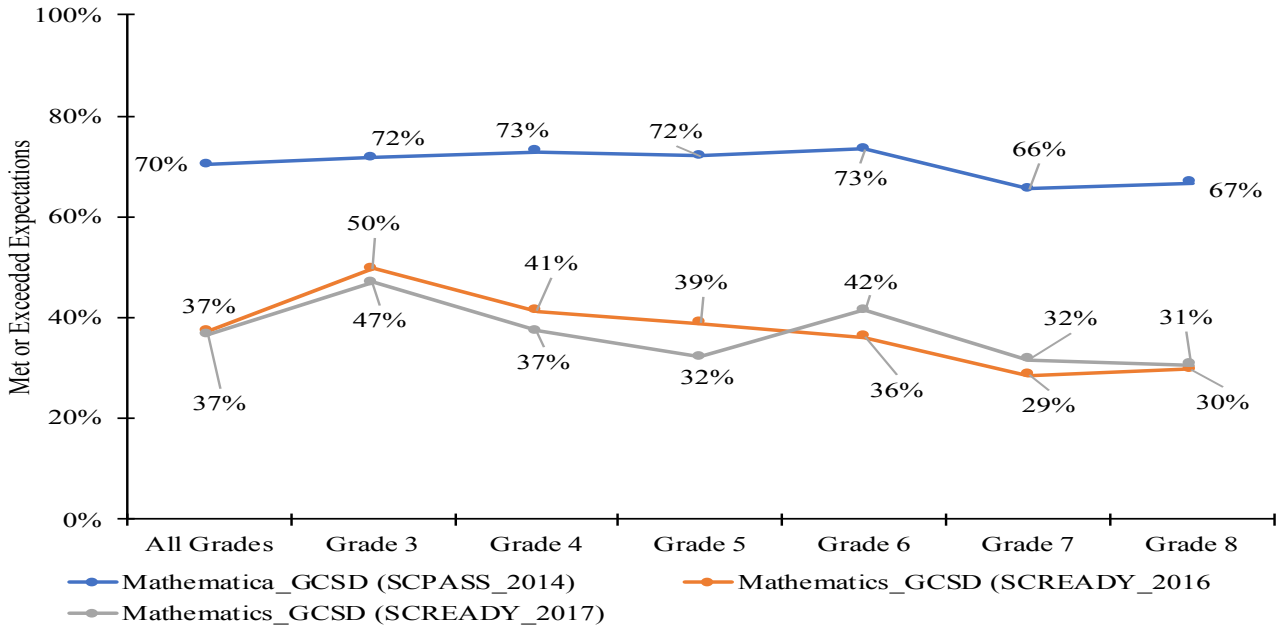


*If the number of test takers is less than 10, the percentage is not calculated.

8.4 GCSD: Mathematics Benchmark Performance

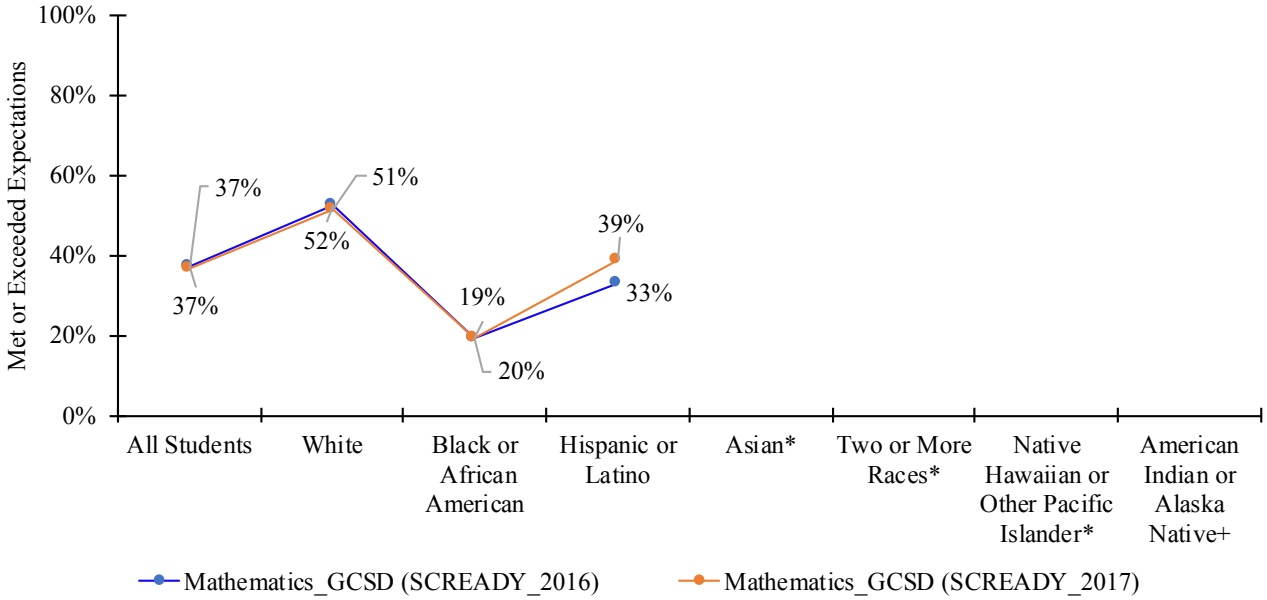
Figure 8.6 profiles benchmark performance by grade level for 2014, 2016, and 2017. There was a significant decrease (47%) in benchmark performance when the test started being administered under the SCREADY testing program in 2016. The change from 2016 to 2017 is statistically even (Figure 8.7). This is a good indication that the decrease in mathematics performance for GCSD students has bottomed out.

Figure 8.6: Mathematics: GCSD benchmark—SCREADY by grade level—2014, 2016, and 2017



Source: South Carolina Department of Education

Figure 8.7: Mathematics: GCSD benchmark—SCREADY by student demographics—2016 and 2017



Source: South Carolina Department of Education

*If the number of test takers is less than 10, a percentage is not calculated.

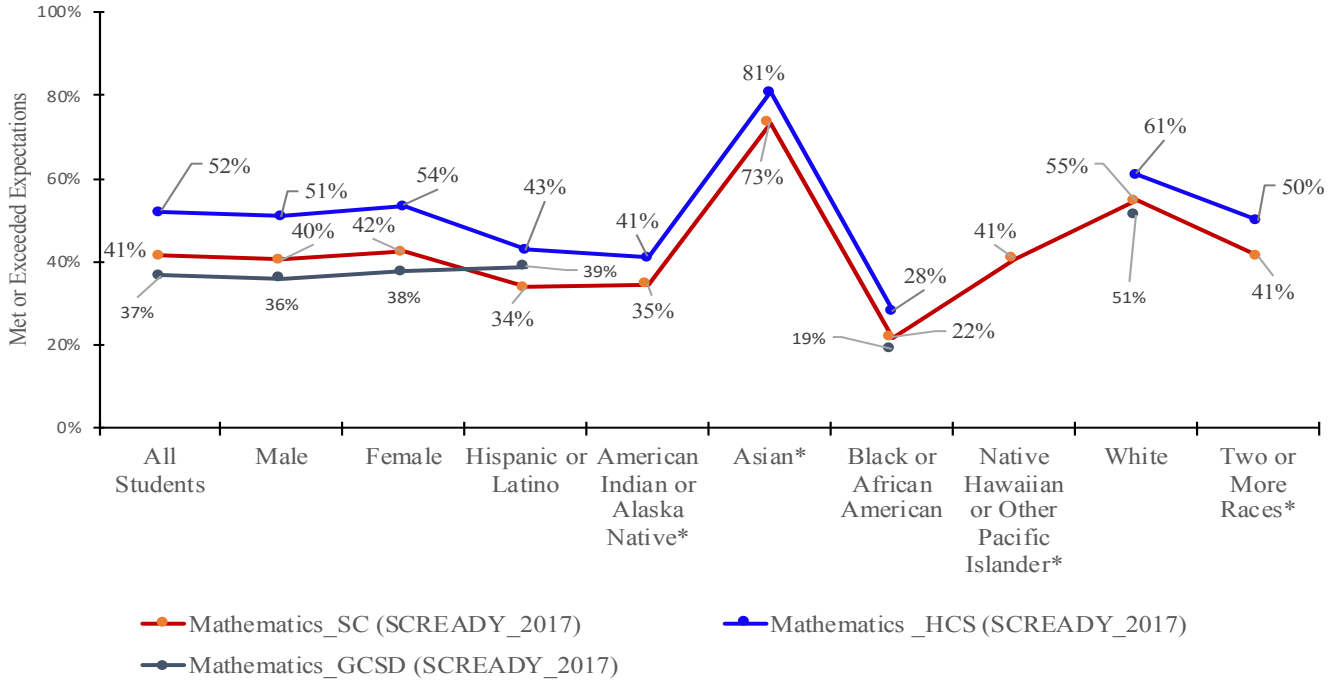
8.5 Comparison of Mathematics Benchmarks Among SC, HCS, and GCSD

The graph (Figure 8.8) profiles the percentage comparison distribution of students meeting or exceeding the mathematics performance benchmark by student demographics for South Carolina, Horry County Schools, and the Georgetown County School District. The Horry County Schools percentage meeting or exceeding the benchmark was higher than South Carolina by 24% and the Georgetown County School District by 34% in mathematics. Consequently, the difference between SC and HCS performance is statistically significant. Also, the difference between HCS and GCSD performance is statistically significant. The Georgetown County School District was more closely aligned with South Carolina's performance, with an overall percentage between the two entities of about 10%.

The Horry County school district is about four times the size of Georgetown County School District, which allows for a possibility that the overall average performance is skewed right because of a higher probability of more high-performing schools in the mix. Statistically, the larger the sample size, the more accurate the results will be. Therefore, Horry County Schools has the advantage of a large sample size.

Although there were differences in performance levels for the state and the two school districts, each demographic group's performance benchmark closely followed the same pattern as that of South Carolina. This implies that the majority of demographic group in every public school in the state of South Carolina will exhibit a benchmark performance pattern similar to the graph in Figure 8.8. Asian students performed better than any other group, which is consistent not only in South Carolina but also nationally.

Figure 8.8: Comparison of mathematics: SC, HCS, and GCSD benchmark—SCREADY by student demographics—2017*



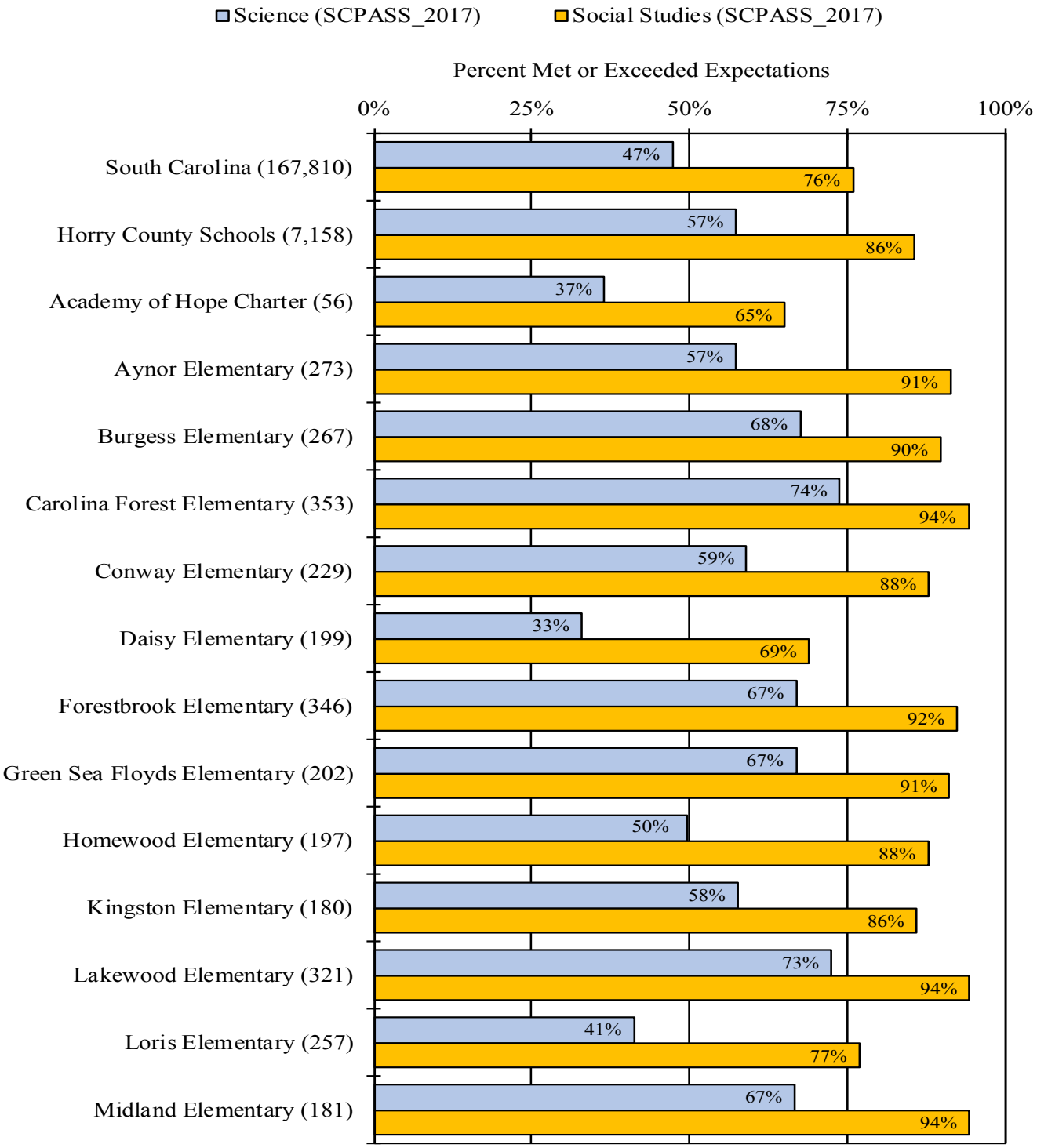
Source: South Carolina Department of Education

*A noncontinuous line on the graph is the results of less than 10 test takers for that group; therefore, the percentage is not calculated. For example, there is not a line for GCSD from Hispanic to Black students because there is no American Indians or Asians listed for GCSD or Native Hawaiian or Other Pacific Islander after Black students

9.1 HCS Elementary Schools: Science and Social Studies—Benchmark Performance

The graph in Figure 9.1 depicts the performance benchmarks for Horry County elementary schools in science and social studies. The figure lists all HCS schools with the percentages meeting or exceeding the benchmark. Figure 9.1 continues on the next page. The population for each entity is in parentheses after its name.

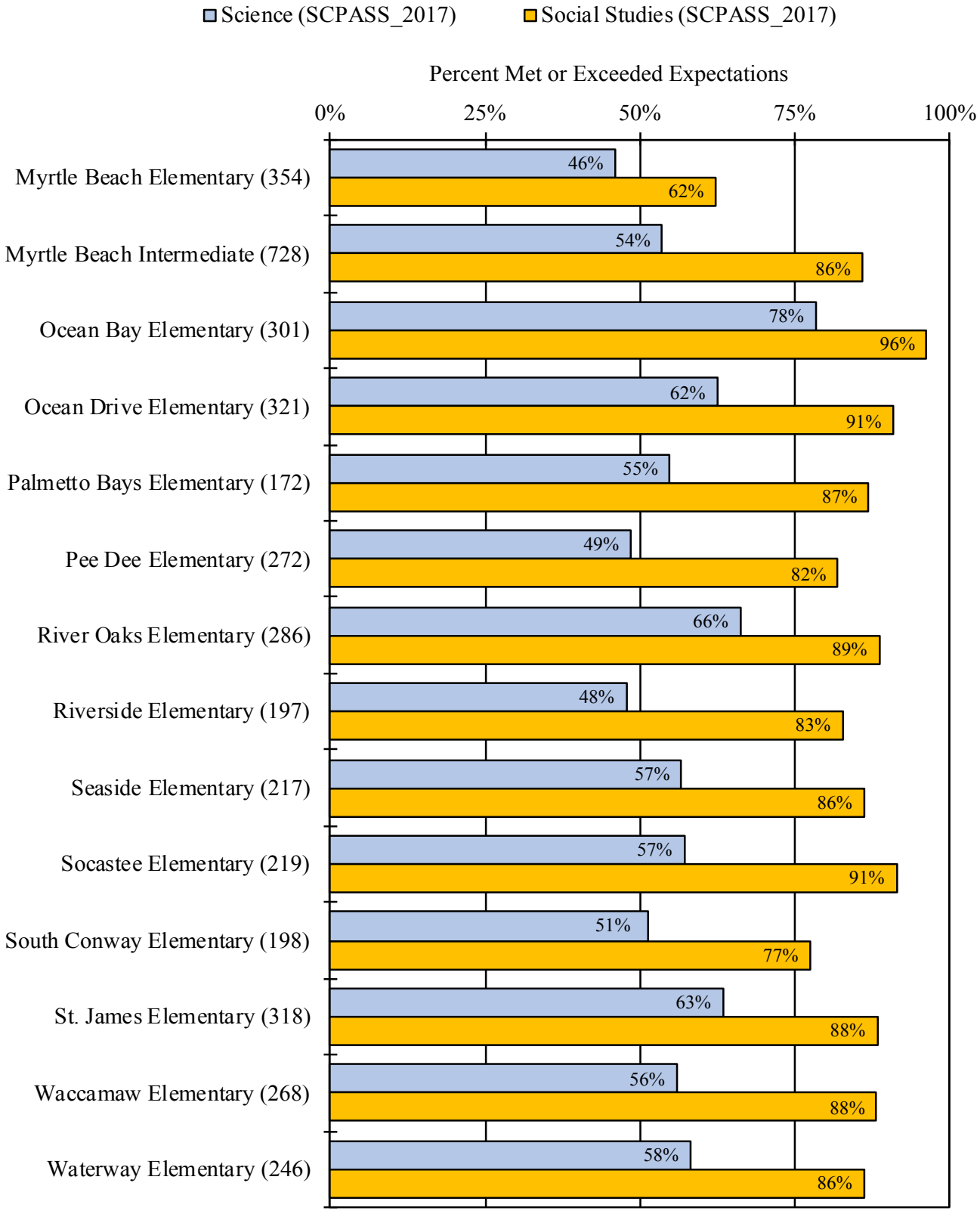
Figure 9.1: Science and social studies: Horry County Schools—elementary school students' SCPASS benchmark by school—2017



Source: South Carolina Department of Education

9.1 HCS Elementary Schools: Science and Social Studies—Benchmark Performance, cont'd

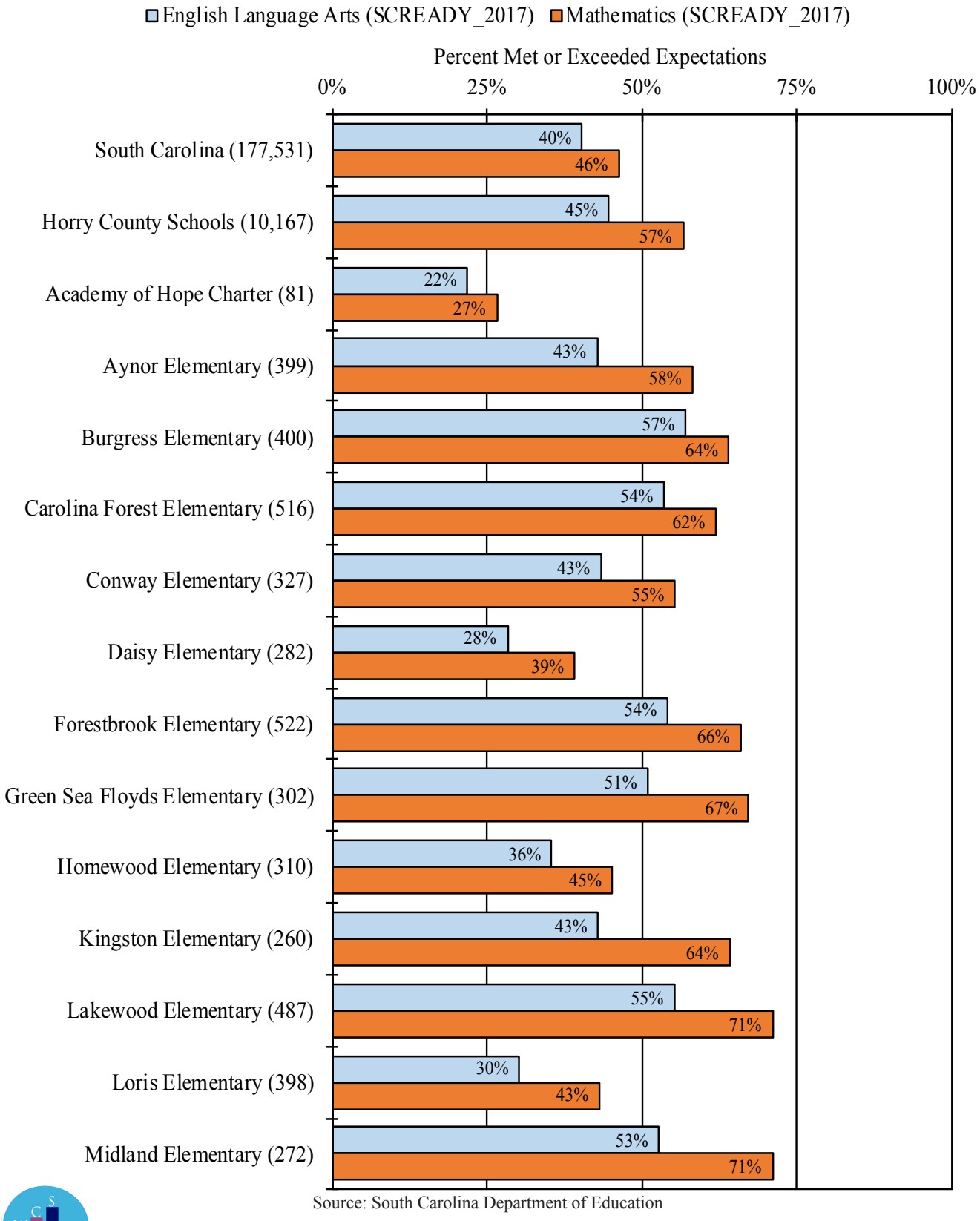
Figure 9.1: (cont'd) Science and social studies—Horry County Schools—elementary school students' SCPASS benchmark by school—2017



Source: South Carolina Department of Education

9.2 HCS Elementary Schools: English Language Arts and Mathematics—Benchmark Performance

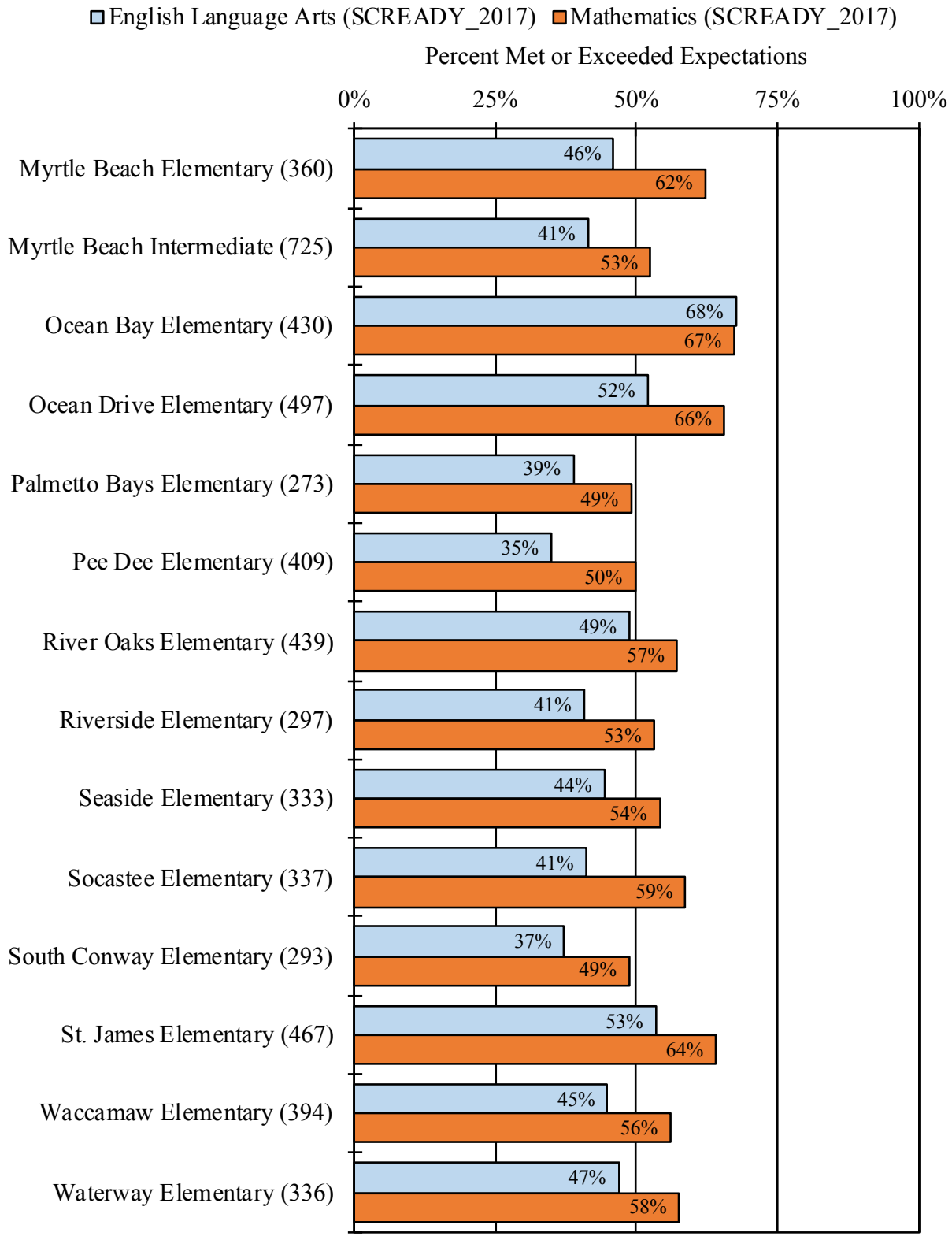
Figure 9.2: English language arts and mathematics—Horry County Schools—elementary school students' SCREADY benchmark by school—2017



Source: South Carolina Department of Education

9.2 HCS Elementary Schools: English Language Arts and Mathematics—Benchmark Performance, cont'd

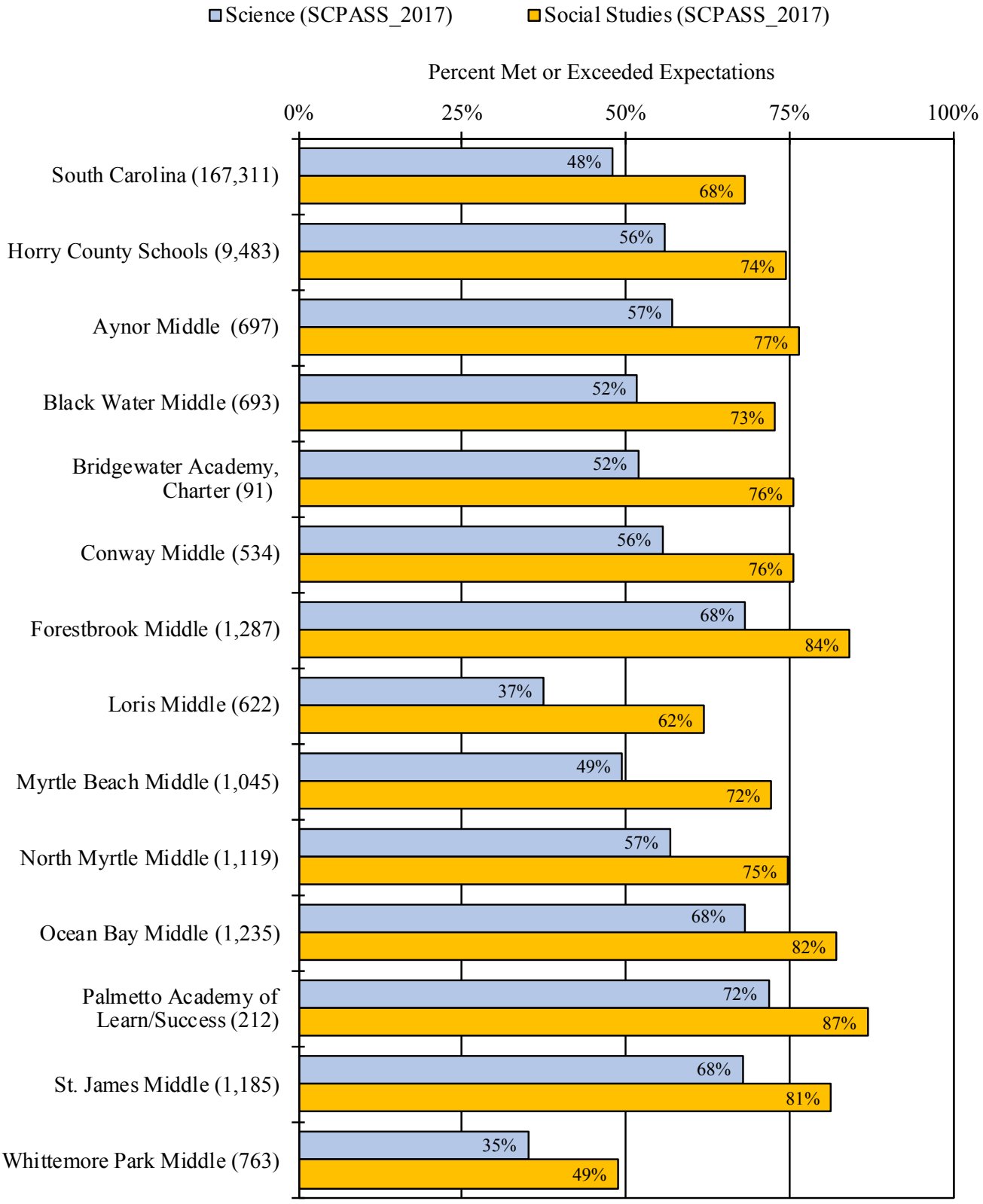
Figure 9.2: (cont'd) English language arts and mathematics—Horry County Schools—elementary school students' SCREADY benchmark by school—2017



Source: South Carolina Department of Education

9.3 HCS Middle Schools: Science and Social Studies—Benchmark Performance

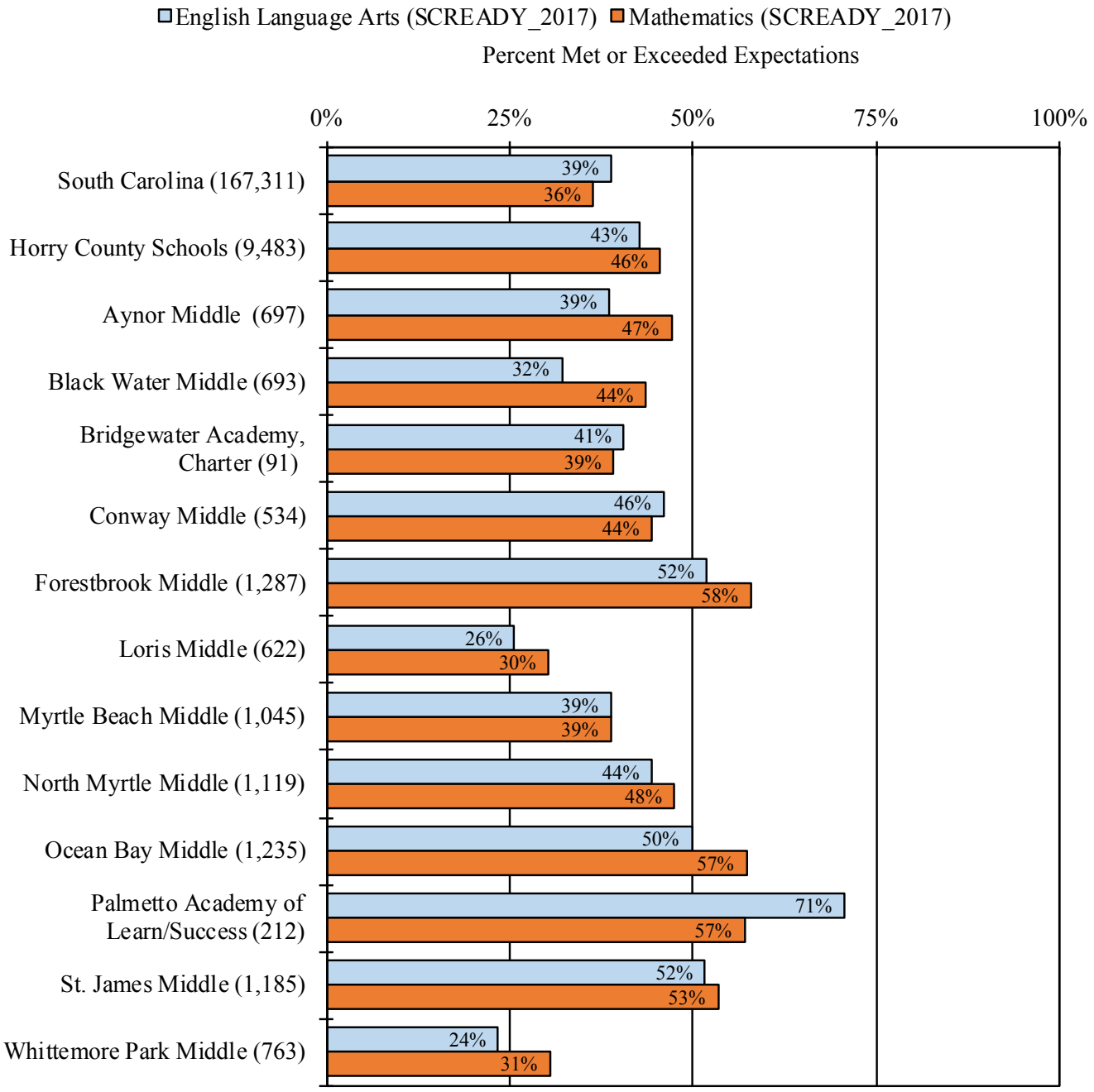
Figure 9.3: Science and social studies—Horry County Schools—middle school students' SCPASS benchmark by school—2017



Source: South Carolina Department of Education

9.4 HCS Middle Schools: English Language Arts and Mathematics—Benchmark Performance

Figure 9.3: English language arts and mathematics—Horry County Schools—middle school students' SCREADY benchmark by school—2017

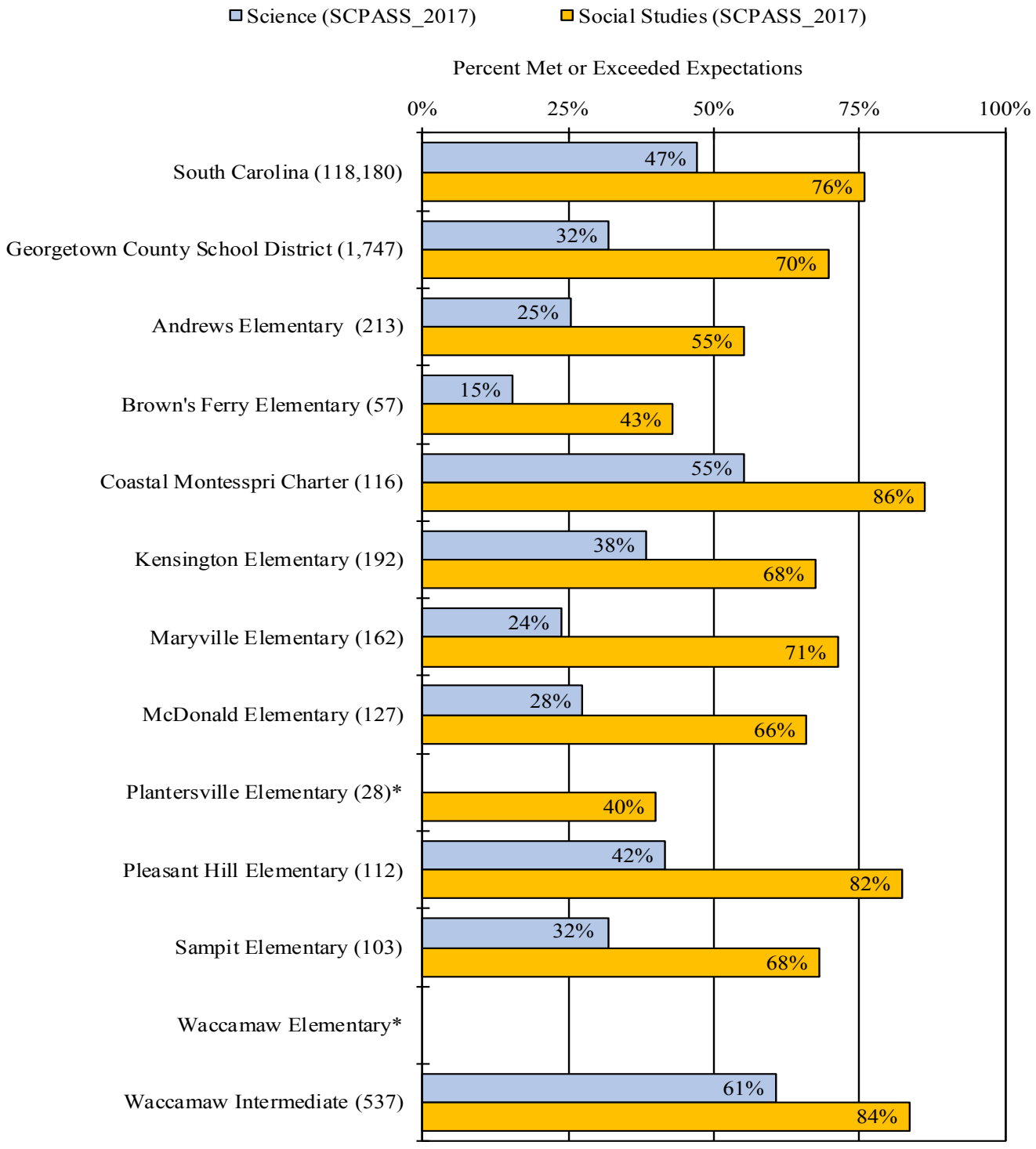


Source: South Carolina Department of Education

10.1 GCSD Elementary Schools: Science and Social Studies—Benchmark Performance

The graph in Figure 10.1 depicts the performance benchmarks for the Georgetown County School District's elementary schools in science and social studies. The figure lists all GCSD elementary schools with the percentages meeting or exceeding benchmark.

Figure 10.1: Science and social studies—Georgetown County School District—elementary school students' SCPASS benchmark by school—2017



Source: South Carolina Department of Education

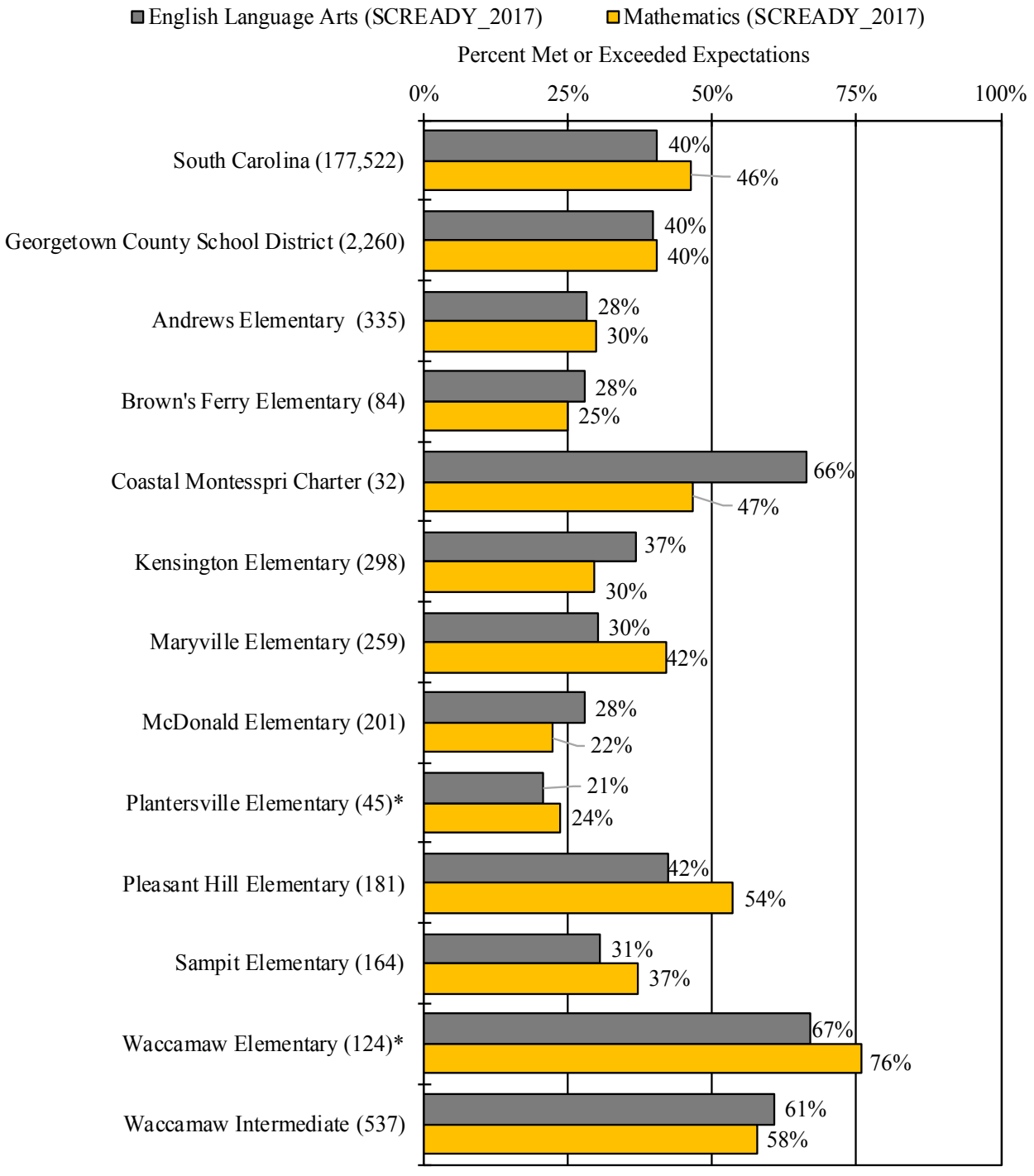
*If the number of test takers is fewer than 10, a percentage is not calculated.

10.2 GCSD Elementary Schools: English Language Arts and Mathematics—Benchmark Performance

The graph in Figure 10.2 shows the performance benchmarks for the Georgetown County School District's elementary schools for English language arts and mathematics.

Figure 10.2 profiles GCSD elementary schools, including the percentages meeting or exceeding performance benchmarks.

Figure 10.2: English language arts and mathematics—Georgetown County School District—elementary school students' SCREADY benchmark by school—2017

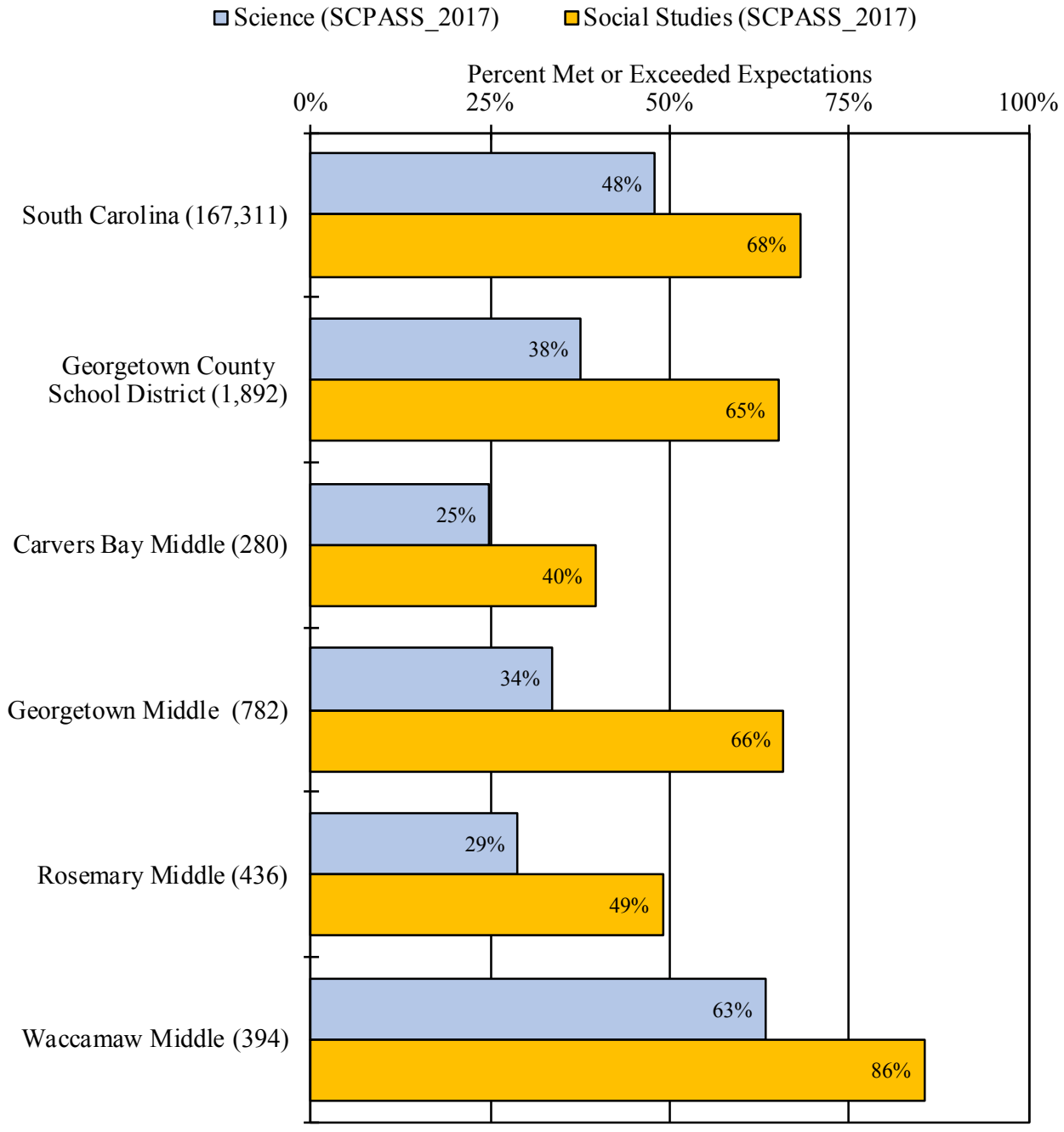


Source: South Carolina Department of Education

10.3 GCSD Middle Schools: Science and Social Studies—Benchmark Performance

The graph in Figure 10.3 shows the performance benchmarks for Georgetown County School District middle schools for science and social studies. GCSD middle schools are listed below in Figure 10.3 with the percentage meeting or exceeding performance benchmarks.

Figure 10.3: Science and social studies—Georgetown County School District—middle school students' SCPASS benchmark by school—2017



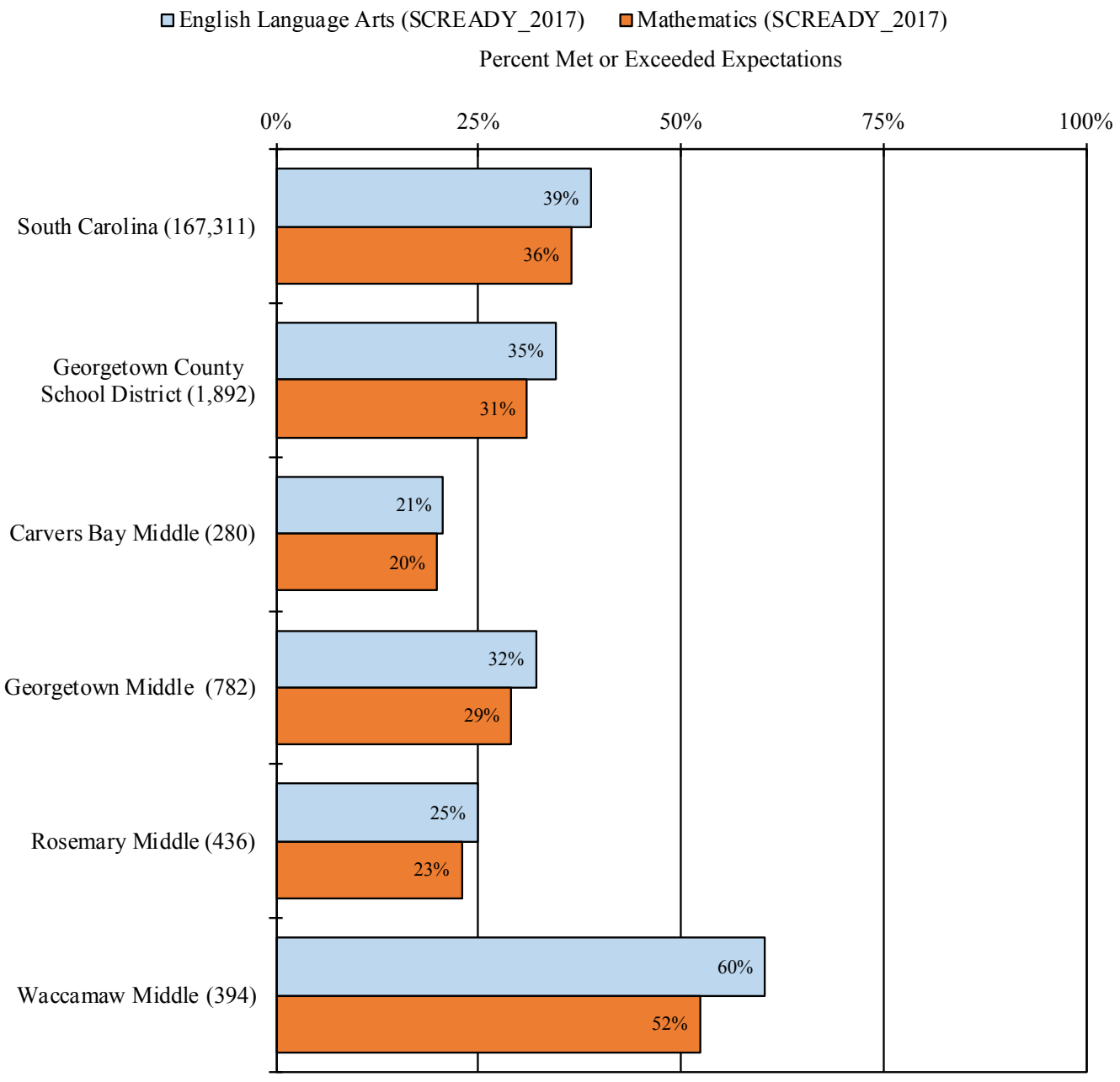
Source: South Carolina Department of Education

*Number of district's middle school students who tested

10.4 GCSD Middle Schools: English Language Arts and Mathematics—Benchmark Performance

Figure 10.4 shows the graph for performance benchmarks for Georgetown County School District middle schools for English language arts and mathematics. The middle schools for these two subjects are listed below in Figure 10.4 with the percentage meeting or exceeding performance benchmarks.

Figure 10.4: English language arts and mathematics—Georgetown County School District—middle school students' SCREADY benchmark by school—2017



Source: South Carolina Department of Education

*Number of district's middle school students who tested

11.1 End-of-Course Examination Program (EOCEP)

The purpose of the End-of-Course Examination Program (EOCEP) is to measure student performance levels and satisfy federal accountability requirements. The courses are Algebra 1, English 1, Biology 1, and US History and the Constitution. The state of South Carolina added the fourth requirement: US History and the Constitution. Scores of C, B, or A are combined to read as a "C" or higher in the graphs for this section of the paper.

Although the EOCEP is a high school accountability testing program, it also tests two of the core high courses that are offered to advanced middle school students in English 1 and Algebra 1.

The EOCEP results are used in the calculation of middle school and high school Absolute Ratings and Growth Ratings.

Note: The EOCEP started using a new grading scale, as shown below, in 2017 per the South Carolina Department of Education.

EOCEP Courses

- Algebra 1
- Biology 1
- English 1
- US History and the Constitution

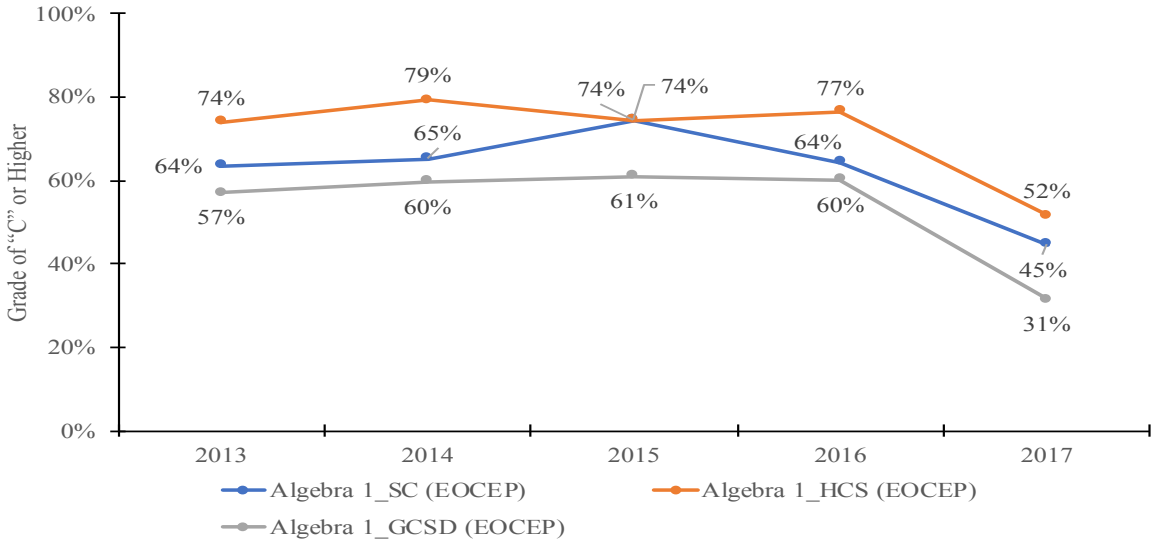
Performance Levels for Algebra 1, Biology 1, and English 1

- The student scores an "F" (0–59)
- The student scores a "D" (60–69)
- The student scores a "C" (70–79)
- The student scores a "B" (80–89)
- The student scores an "A" (90–100)

11.2 Algebra 1 and Biology 1—Five-Year Trend

The graph (Figure 11.1) profiles the trend in percentage of students earning a grade of "C" or higher on the EOCEP in Algebra 1 in South Carolina, Horry County Schools, and the Georgetown County School District from 2013 through 2017. Algebra 1 experienced an overall significant decrease (36%) from 2016 to 2017 in students earning a "C" or higher.

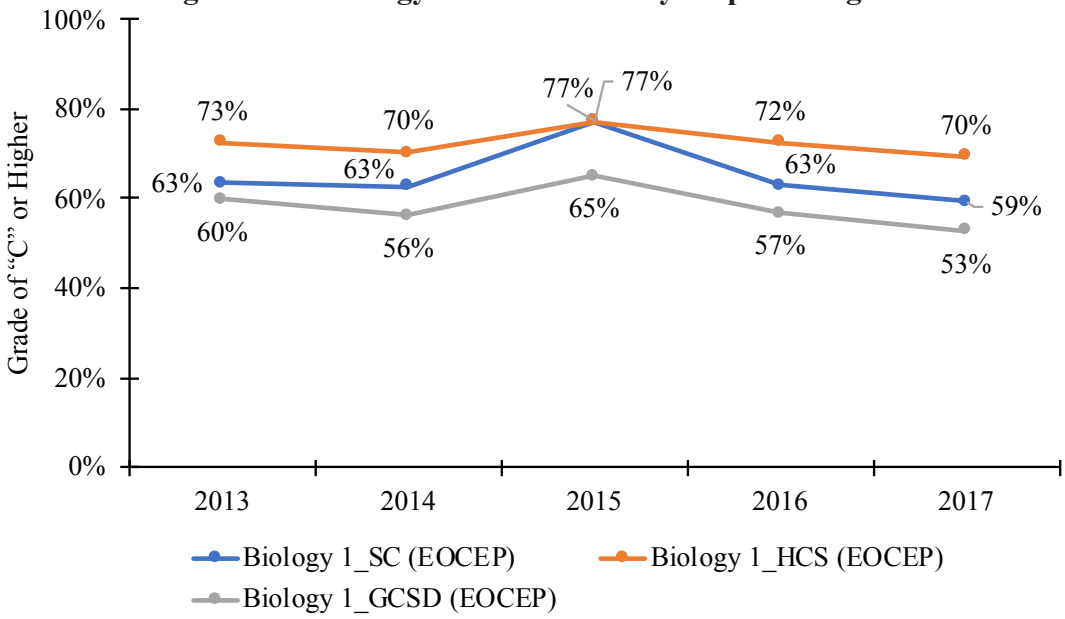
Figure 11.1: Algebra 1—EOCEP five-year percentage trend



Source: South Carolina Department of Education

The graph (Figure 11.2) profiles the trend in the percentage of students earning a grade of "C" or higher on the EOCEP in Biology 1 for South Carolina, the Horry County Schools, and the Georgetown County School District from 2013–2017. Although the line patterns remained rather stable over the past five years except for an up-tick in 2015 there, was a decrease in performance (Figure 11.2). For example, the three groups saw a decrease of 6%, 4%, and 12%, respectively.

Figure 11.2: Biology 1—EOCEP five-year percentage trend



Source: South Carolina Department of Education

11.3 English 1 and US History and the Constitution—Five-Year Trend

The graph (Figure 11.3) profiles the trend in the percentage of students earning a grade of "C" or higher in EOCEP in English 1 for South Carolina, Horry County Schools, and the Georgetown County School District from the 2013 through 2017 school years. Although the line patterns remained rather stable over the past five years there was a decrease in those earning a "C" or higher in the referenced course, as illustrated in Figure 11.3. For example, South Carolina, the Horry County Schools, and the Georgetown County School District saw a decrease of about 2%, 6%, and 13%, respectively. Overall, English performance saw a decrease of about 20% from 2013 through 2017.

Figure 11.4 shows an increase in US History and the Constitution performance by all three entities of 42%, 28%, and 83%, respectively, from 2013 through 2017. GCSD experienced by far the largest improvement in earning a "C" or higher on the EOCEP test (45%) from 2013 through 2017.

Figure 11.3: English 1—EOCEP five-year percentage trend*

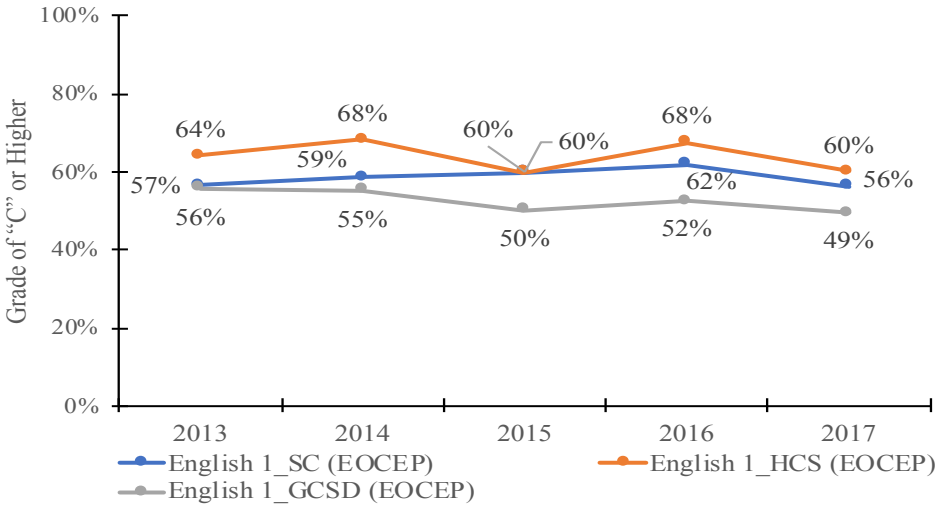
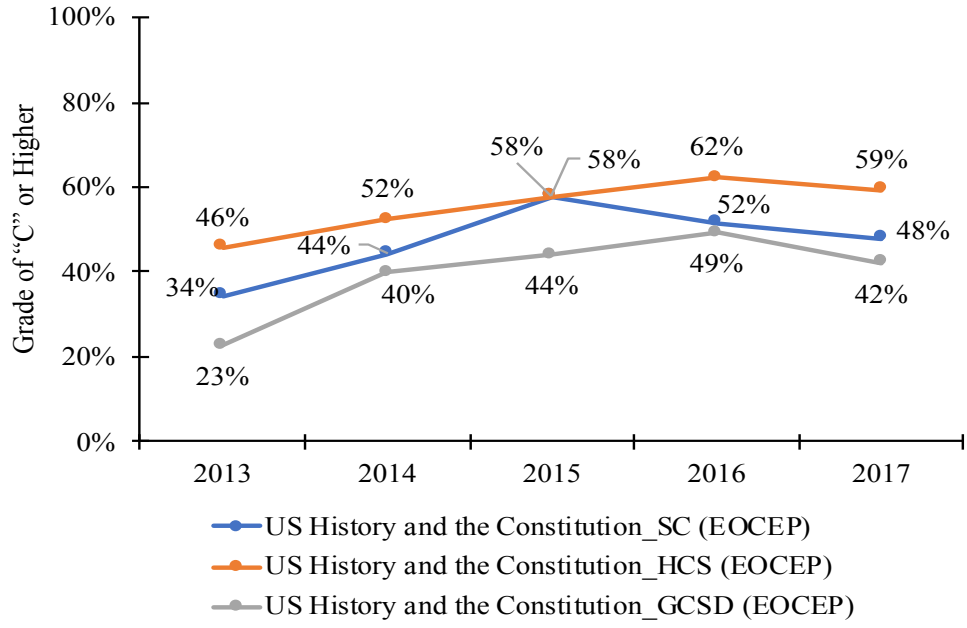


Figure 11.4: US History and the Constitution—EOCEP five-year percentage trend*

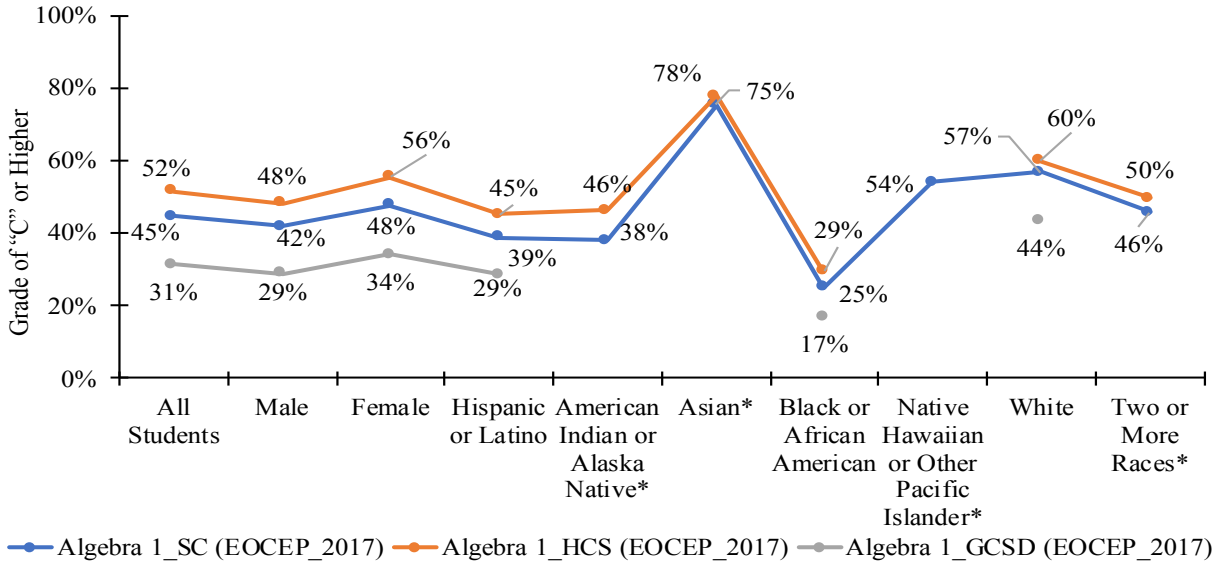


*Source: South Carolina Department of Education

11.4 Algebra 1 and Biology 1—Performance by Student Demographics

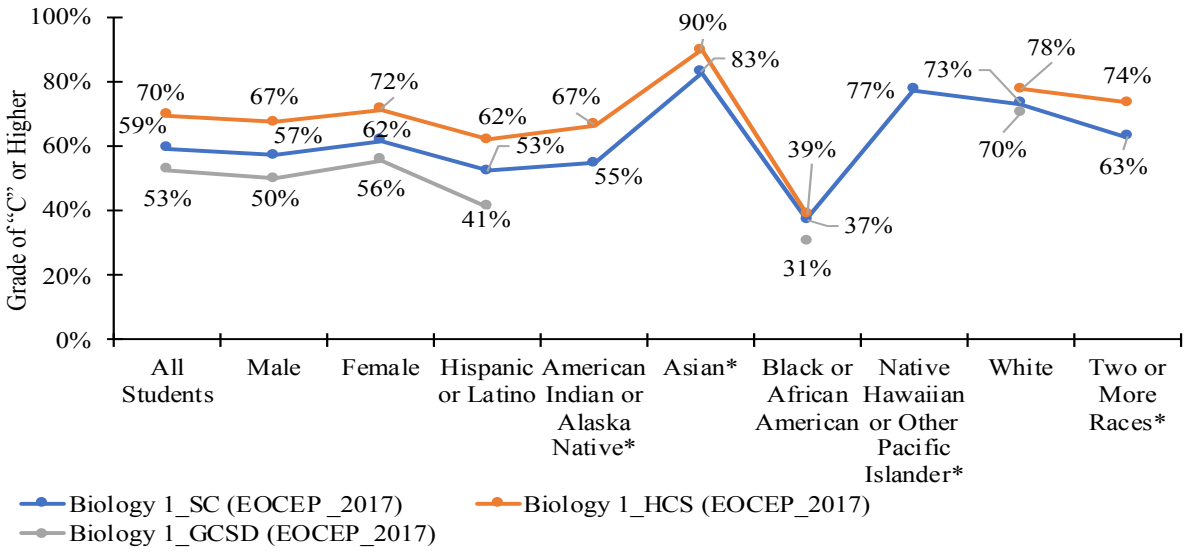
The graph in Figure 11.5 profiles the percentage of students earning a grade "C" or higher on the Algebra 1 EOCEP for South Carolina, the Horry County Schools, and the Georgetown County School District. The percentages of all students earning a "C" or higher for the three school systems in 2017 are 45%, 52%, and 31%, respectively. This is a decrease of 36% from 2016 (Figure 11.1). The percentages of those not earning a "C" or higher are 55%, 48%, and 69%, respectively. The old system required a grade of 77 for a "C," and the new grading system (2017) required only a score of 70 to earn a "C"; nevertheless, the percentage earning a "C" or higher decreased from the 2016 grading system. In Figure 11.6, performance in Biology 1 fared significantly better than that of Algebra 1 (down only 6%) from 2016 to 2017.

Figure 11.5: Algebra 1—EOCEP performance profile by student demographics—2017



Source: South Carolina Department of Education

Figure 11.6: Biology 1—EOCEP performance profile by student demographics—2017



Source: South Carolina Department of Education

*If the number of test takers is fewer than 10, a percentage is not calculated.

11.5 English 1 and US History and the Constitution—Performance by Student Demographics

The graph in Figure 11.7 profiles the percentage of students earning a grade of "C" or higher on English 1 EOCEP for South Carolina, Horry County Schools, and the Georgetown County School District. The percentages of all students earning a "C" or higher for the three school systems in 2017 are 56%, 56%, and 49%, respectively. This is a decrease of about 10% from 2013 through 2017 of test takers earning a "C" or higher. The old system required a grade of 77 for a "C," and the new grading system required only a score of 70 to earn a "C"; nevertheless, the percentage earning a "C" or higher decreased by 9% from 2016 to 2017 (Figure 11.3). In Figure 11.4, the percentages are 48%, 59%, and 42%, respectively (SC, HCS, and GCSD). Overall, the two districts percentage earning a "C" or higher in US History and the Constitution was up by about 36% from 2013 through 2017 (Figure 11.4).

Figure 11.7: English 1—EOCEP benchmark profile by student demographics—2017**

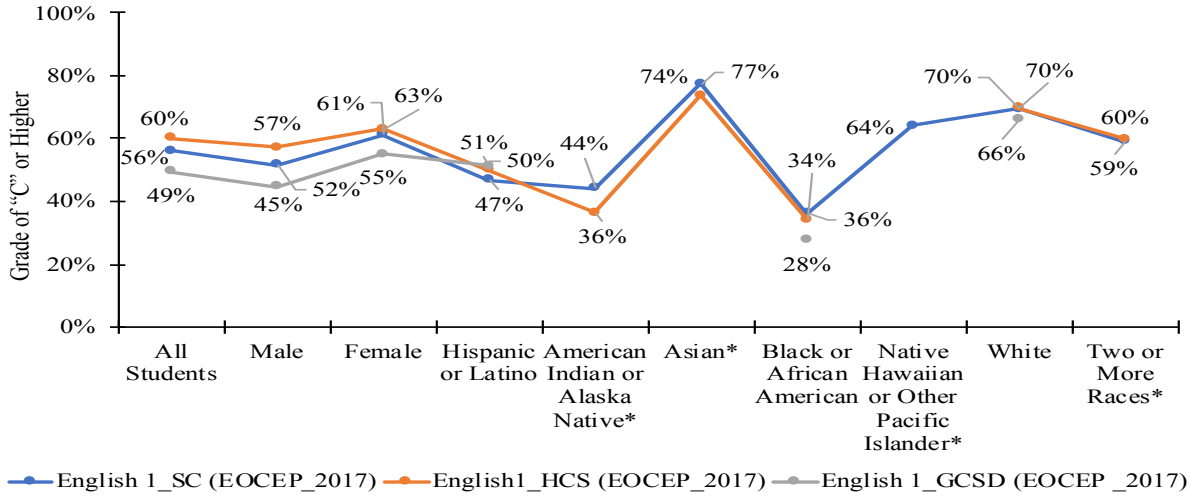
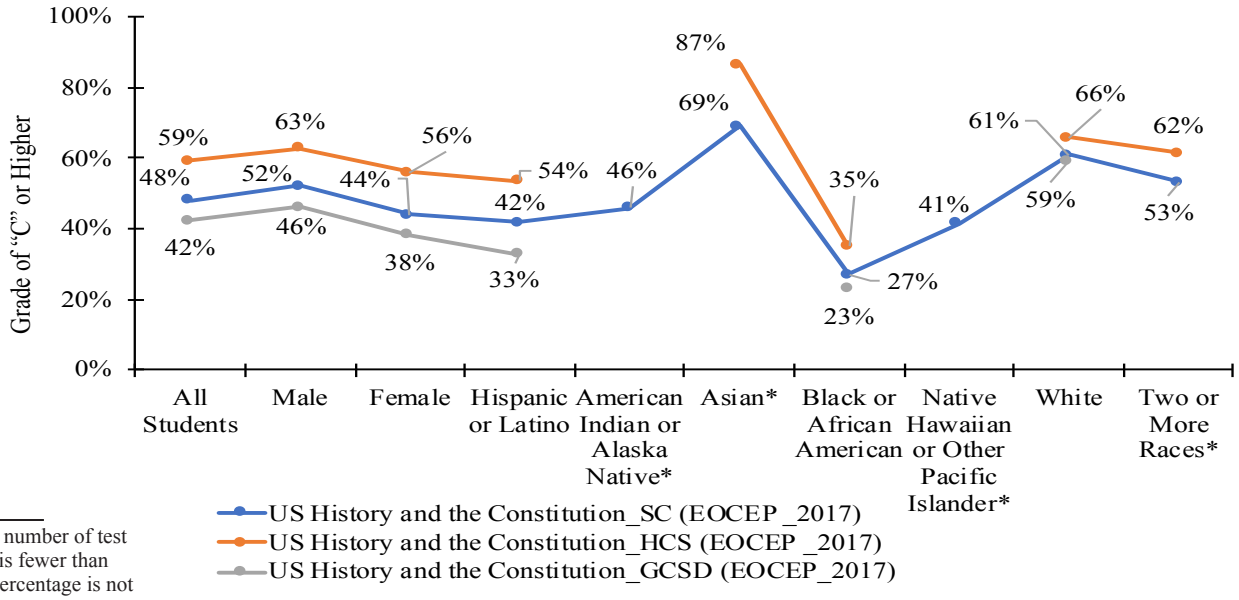


Figure 11.8: US History and the Constitution—EOCEP benchmark profile by student demographics—2017**



*If the number of test takers is fewer than 10, a percentage is not computed.

**Source: South Carolina Department of Education

11.6 Tabular Data for Sections 11 and 12

Table 11.1 Number of EOCEP test takers by subject over a five years

Description	2013	2014	2015	2016	2017
South Carolina:					
Algebra 1	57,068	58,790	59,659	58,862	62,655
Biology 1	52,647	53,478	54,806	57,364	59,384
English 1	56,886	56,315	58,578	58,414	59,931
US History and the Constitution	47,558	47,731	48,702	50,154	52,545
Horry County Schools:					
Algebra 1	3,142	3,209	3,475	3,258	3,931
Biology 1	2,758	2,839	2,971	3,106	3,504
English 1	2,963	3,091	3,258	3,308	3,339
US History and the Constitution	2,487	2,561	2,701	2,818	3,000
Georgetown County School District:					
Algebra 1	710	732	793	793	865
Biology 1	641	813	763	763	723
English 1	702	724	766	766	795
US History and the Constitution	651	586	628	628	726

Source: South Carolina Department of Education

11.6 Data Tables for Sections 11 and 12, cont'd

Table 11.2 Number of EOCEP test takers in 2017 by subject—state and districts

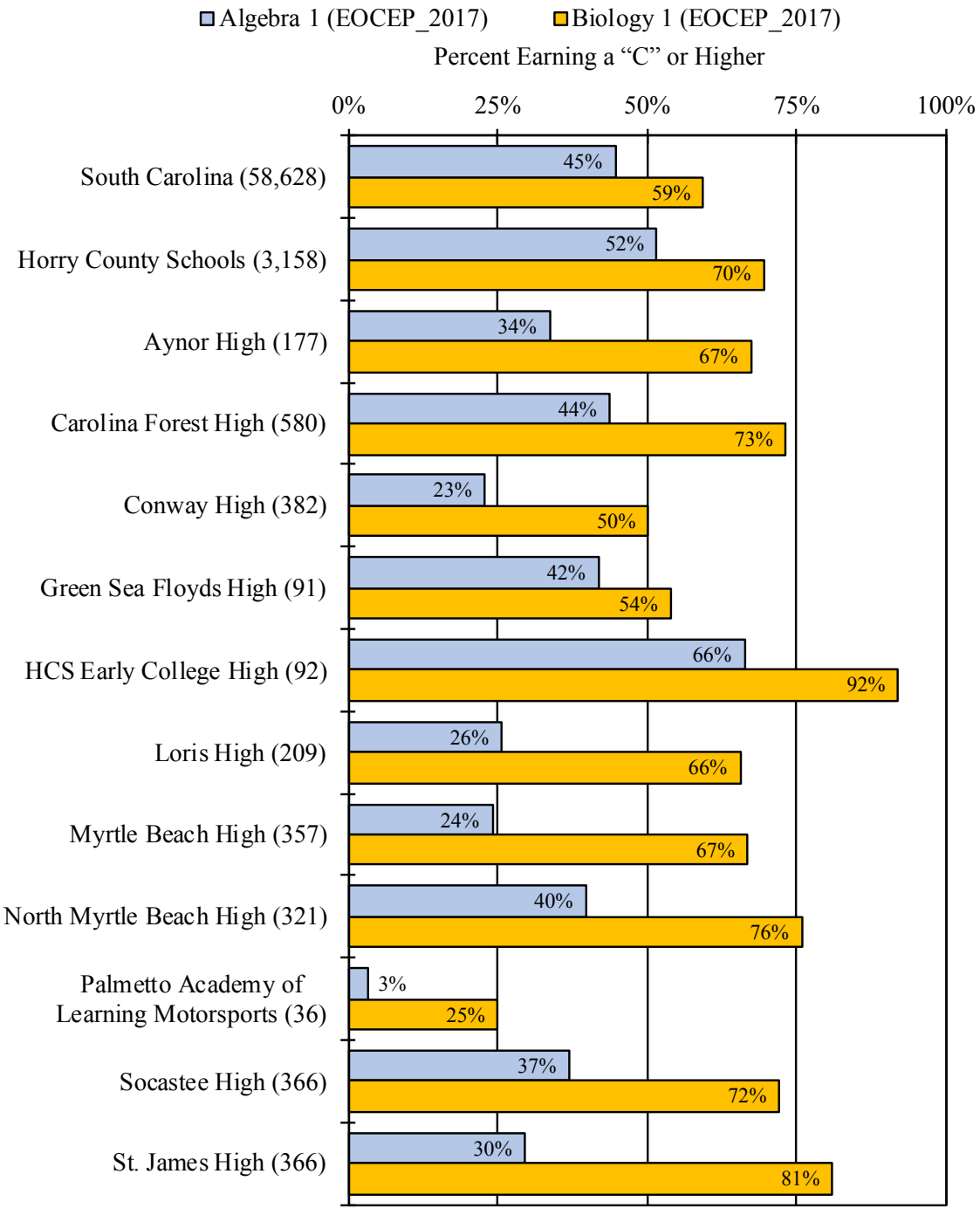
Description	Algebra 1	Biology 1	English 1	US History and the Constitution
South Carolina:				
All Students	62,655	59,384	59,931	52,545
Male	31,962	29,692	30,742	25,939
Female	30,484	29,563	28,977	26,536
Hispanic or Latino	5,088	4,640	4,977	3,764
American Indian or Alaska Native	171	175	181	146
Asian	1,001	1,011	1,007	893
Black or African American	20,638	19,695	19,747	17,621
Native Hawaiian or Other Pacific Islander	76	71	75	80
White	33,438	31,843	31,757	28,439
Two or More Races	2,002	1,761	1,927	1,494
Horry County Schools:				
All Students	3,931	3,504	3,339	3,000
Male	2,067	1,764	1,776	1,491
Female	1,859	1,737	1,560	1,506
Hispanic or Latino	400	302	339	233
American Indian or Alaska Native	13	15	11	6
Asian	45	68	38	45
Black or African American	807	617	655	550
Native Hawaiian or Other Pacific Islander	5	4	6	4
White	2,413	2,336	2,099	2,022
Two or More Races	240	155	184	138
Georgetown County School District:				
All Students	865	723	795	726
Male	440	354	425	373
Female	425	369	370	353
Hispanic or Latino	42	29	35	43
American Indian or Alaska Native	2	2	1	2
Asian	5	2	5	302
Black or African American	371	296	336	1
White	436	387	411	377
Two or More Races	8	5	7	7

Source: South Carolina Department of Education

12.1 Algebra 1 and Biology 1: HCS—Percentage Earning a "C" or Higher by School

The graph in Figure 12.1 shows the percentage by school earning a "C" or higher in the end-of-course tests. The courses listed in this graph are Algebra 1 and Biology 1. HCS students' performance in Biology 1 was higher than in Algebra 1 by about 30%. SC Biology 1 students outperformed Algebra 1 students by about 27%. The average number of test takers is in parentheses after each school's name (Figures 12.1 and 12.2).

Figure 12.1: Algebra 1 and Biology 1— HCS EOCEP performance, percent "C" or higher by school—2017

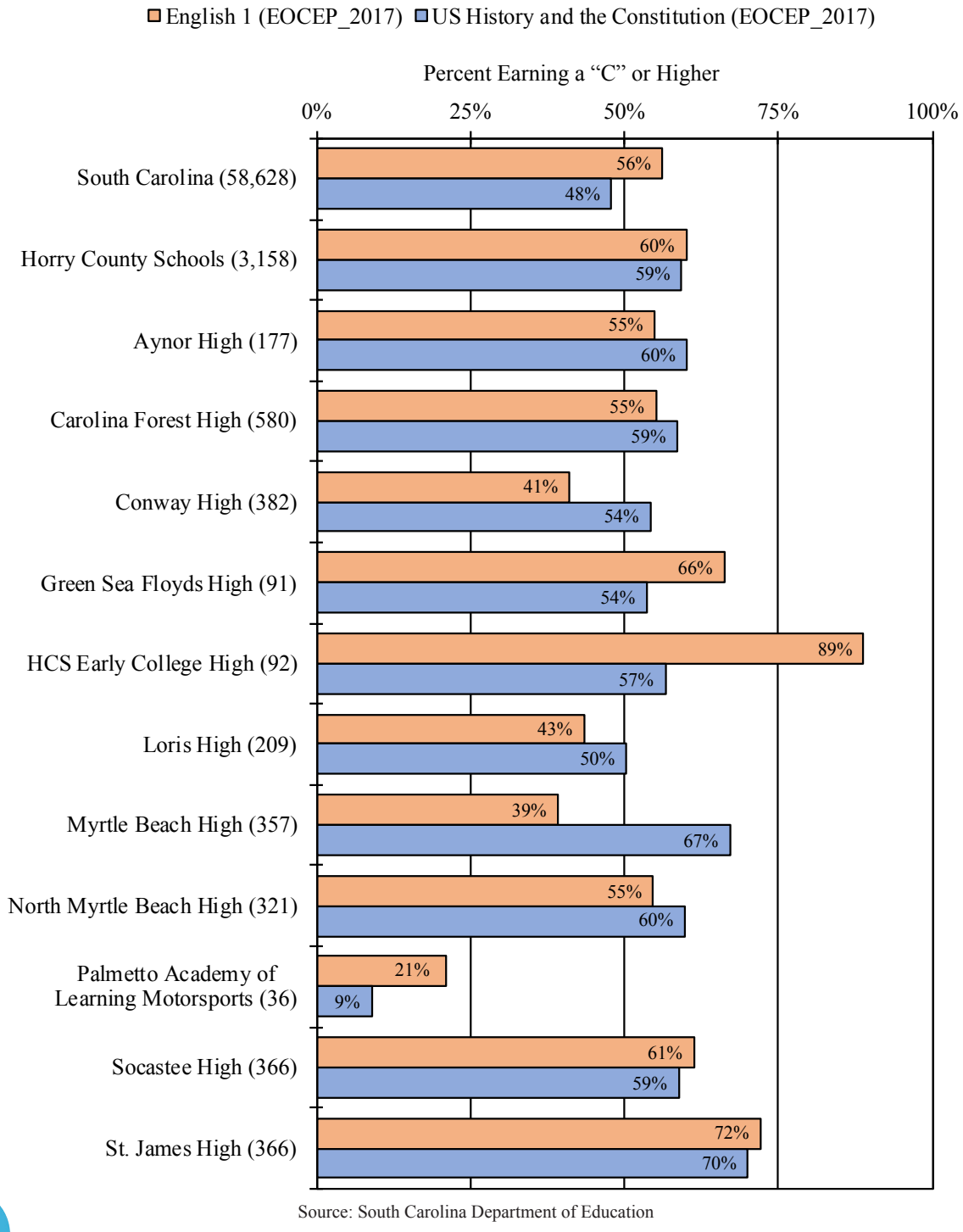


Source: South Carolina Department of Education

12.2 English 1 and US History and the Constitution: HCS—Percentage Earning a "C" or Higher by School

The graph in Figure 12.2 profiles the percentage of high school students earning a "C" or higher in the end-of-course tests. The courses listed in this graph are English 1 and US History and the Constitution. The Early College High School outperformed all county schools in English 1 by a credible margin. SC students performed better in English 1 than in US History and the Constitution by 15%.

Figure 12.2: English 1 and US History and the Constitution—HCS EOCEP performance, percent "C" or higher by school—2017

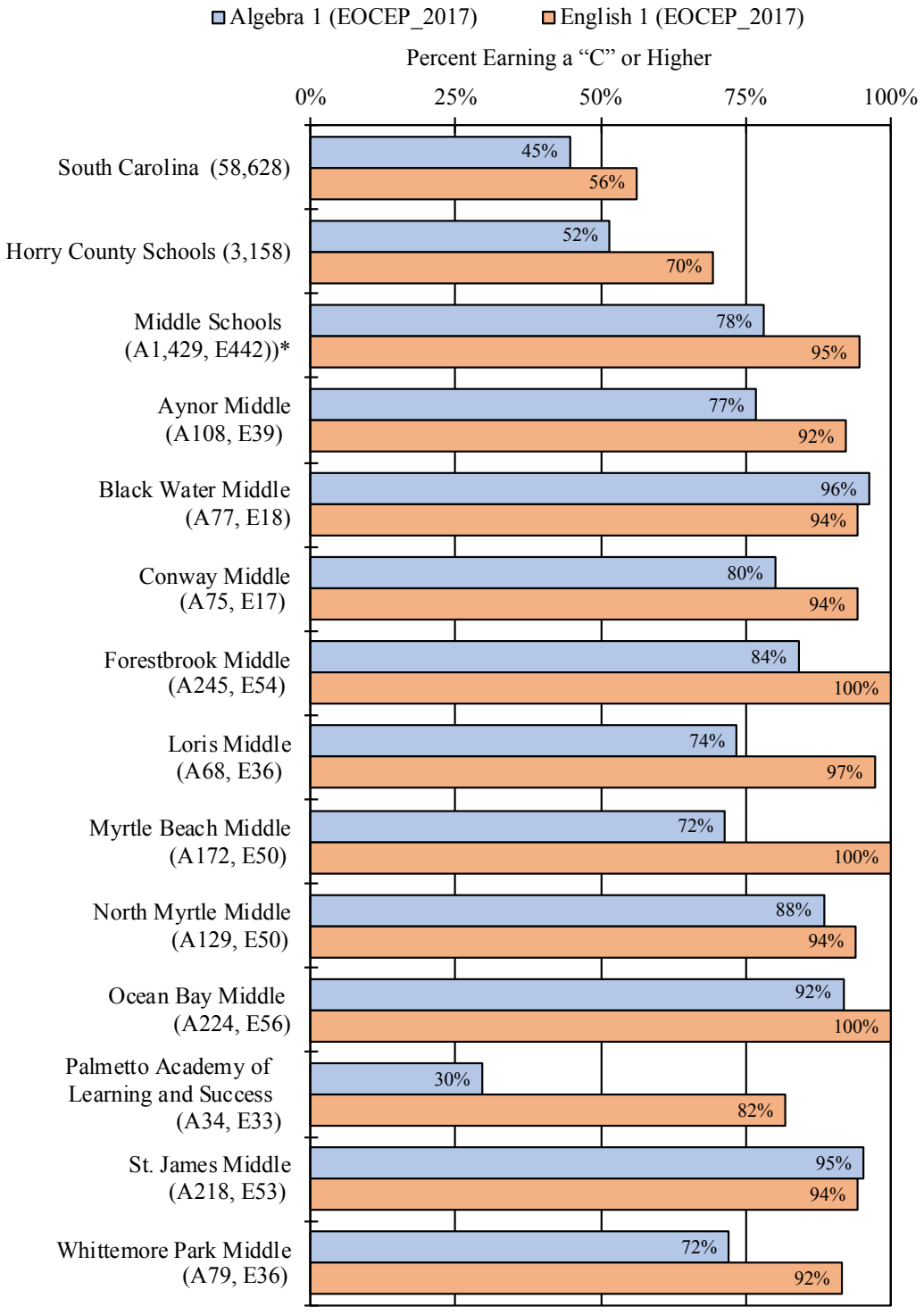


Source: South Carolina Department of Education

12.3 Algebra 1 and English 1: HCS—Percentage Earning a "C" or Higher (Middle School)

Figure 12.3 profiles the percentage of middle school students who completed high school courses while still in middle school. These students are required to take the EOCEP to receive high school credit. As expected from a group of honor students, the middle school cohorts outperformed the high school students by 80% and 54%, respectively.

Figure 12.3: Algebra 1 and English 1—HCS EOCEP performance (middle school students), percent "C" or higher by school name—2017

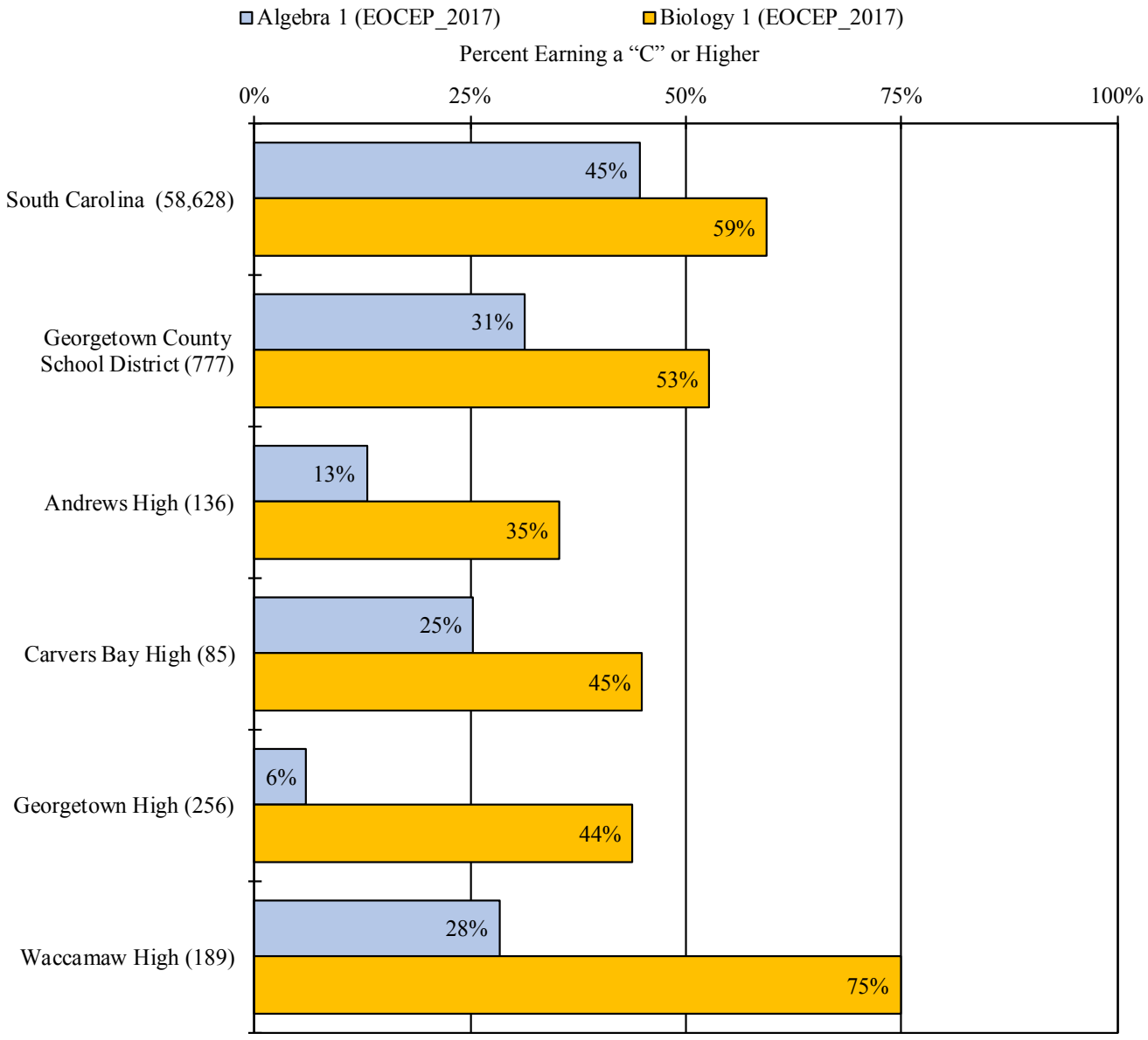


Source: South Carolina Department of Education

13.1 Algebra 1 and Biology 1: GCSD—Percentage Earning "C" or Higher by School

The graph in Figure 13.1 profiles the percentage by school for Georgetown County School District students earning a "C" or higher on the end-of-course tests. The courses listed in this graph are Algebra 1 and Biology 1. Overall, GCSD's students performed significantly better in Biology 1 compared to Algebra 1 by 53%. SC Biology students performed better than Algebra 1 students by 27%.

Figure 13.1: Algebra 1 and Biology 1—GCSD EOCEP performance, percent "C" or higher by school—2017

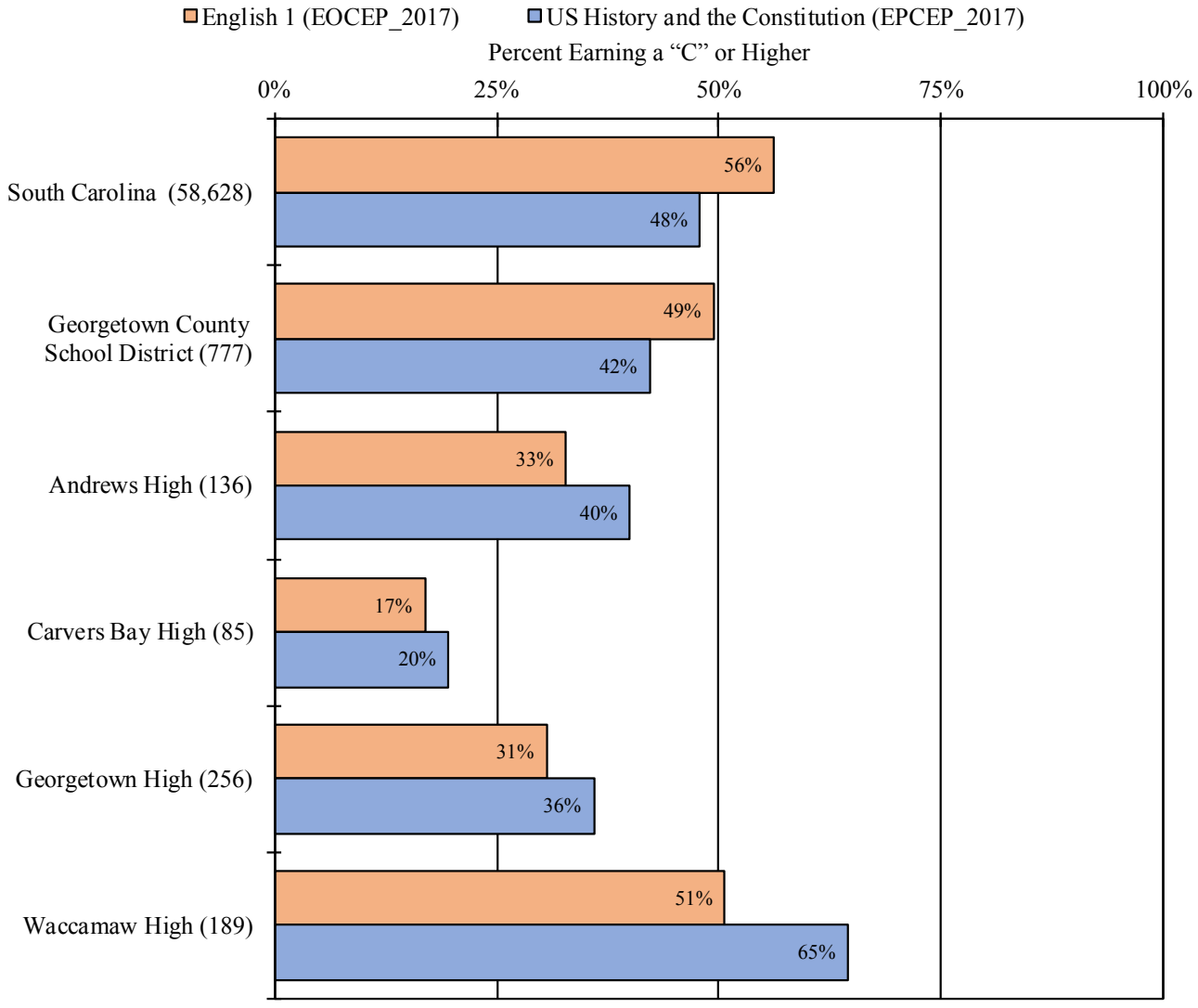


Source: South Carolina Department of Education

13.2 English 1 and US History and the Constitution: GCSD—Percentage Earning a "C" or Higher by School

The graph in Figure 13.2 profiles by school the percentage of Georgetown County School District students who earned a "C" or higher on the end-of-course tests. The courses listed in this graph are English 1 and US History and the Constitution. Overall, GCSD's students performed better in English 1 compared to US History and the Constitution by 14%. SC English 1 students performed better than US History and the Constitution students by 15%.

Figure 13.2: English 1 and, US History and the Constitution—GCSD EOCEP performance, percent "C" or higher by school—2017



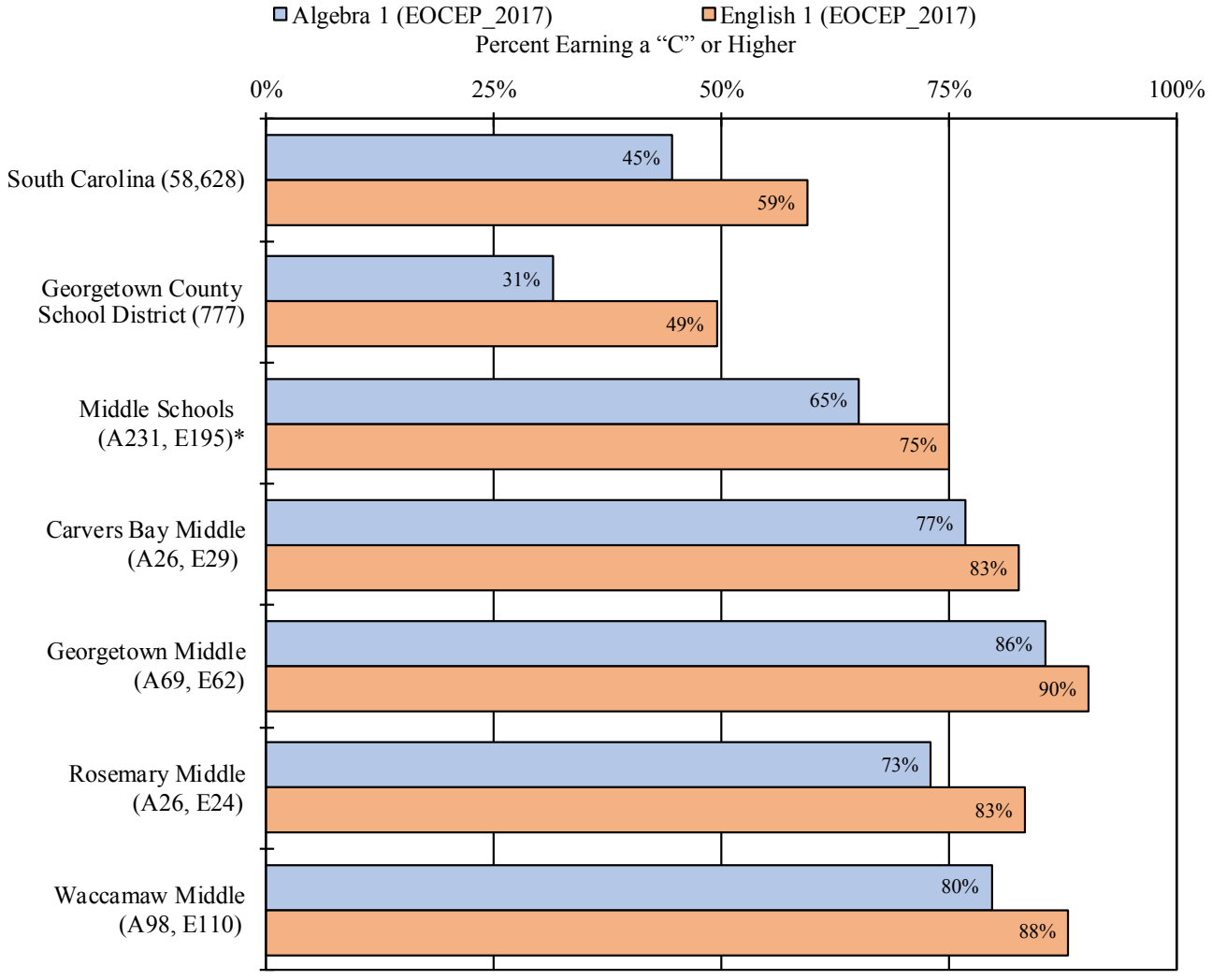
Source: South Carolina Department of Education

13.3 Algebra 1 and English 1: GCSD—Percentage Earning a "C" or Higher (Middle School)

The graph in Figure 13.3 profiles by school the percentage of EOCEP middle school students who completed high school courses while still in middle school. These students are required to take the EOCEP to receive high school credit for completing these high school courses while still in middle school. The two core high school courses, as shown, are Algebra 1 and English 1. Overall, the middle school students performed higher in Algebra 1 and English 1 than their high school cohorts by 89% and 63%, respectively. This is expected, given that middle school students enrolled in EOCEP level are classified as honor students.

The number of students tested is shown in parenthesis along with the name of the middle school. For example, the number of algebra test takers has the prefix "A" and the number English students has "E" as the prefix.

Figure 13.3: Algebra 1 and English 1—GCSD EOCEP performance, percentage "C" or higher (middle schools) by school—2017



Source: South Carolina Department of Education

*Middle schools that offer high school core courses for credit toward high school graduation

14.1 Introduction: ACT-Tested High School Eleventh Graders

Beginning in spring 2016, South Carolina required all eleventh grade students to take the ACT® test. The ACT is a tool that assesses readiness for college and career. The ACT scores are used for state and federal accountability requirements. The ACT test consists of four multiple-choice tests (English, mathematics, reading, science) and a writing test.

This section profiles the 2017 ACT test results for the Horry County Schools and the Georgetown County School District. There were reports of glitches during the 2017 examination, such as the computer appearing lock or freeze up; therefore, many students had to resort to paper and pencil to complete the test. After performing statistical analyses tests on South Carolina ACT tests results for 2016 and 2017, the author of this paper found no statistical evidence that the glitch in 2017 negatively impacted South Carolina test takers' performance. Other than the inconvenience the glitch may have caused, there should not be any concern relative to the malfunction of the software negatively affecting students performance by causing a lower ACT score.

The benchmarks are scores on the ACT subject area tests that represent the level of achievement required for students to have a 50% chance of obtaining a "B" or higher or about a 75% chance of obtaining a "C" or higher in corresponding credit-bearing first-year college courses. South Carolina has established two levels of achievement to identify students who took the ACT®: Ready and Not Ready. These achievement levels are based on ACT's College Readiness Benchmark Scores (Table 14.1). Students that meet or exceed the benchmark score are "Ready"; those below the benchmark are "Not Ready." For example, to be ready in English, a student must score 18 or higher. For 2017, South Carolina has established an overall ready composite score of 20 based on the state's analysis of empirical data for its test takers. The composite score is the average of the four scores from the four parts of the ACT test. Therefore, a student with a composite score of 20 in South Carolina is deemed ready. The percentage ready, based on a composite score, is the number of cohorts with a composite score of 20 or higher divided by the number of test takers (eleventh graders) in South Carolina. The graphs in this section profile percentage readiness in each subject area as outlined (Table 14.1) and the composite score. To clarify, for example, the percentage ready in English is computed by dividing the number of students scoring 18 or higher by the number of test takers who completed the English portion of the test. The graduating seniors percentage ready follows the same format when computing percentage ready.

The ACT Composite score is the average of the ACT English, mathematics, reading and science scores. The Composite score is reported on a 1–36 scale. Benchmark scores in this paper are for English, mathematics, reading, and science. In addition a science, technology, engineering, and mathematics (STEM) benchmark is included in this paper. The STEM benchmark is derived from the mathematics and science components of the ACT test. STEM score is always shown as a composite score of these two subjects.

Example - Computing Readiness

■ **South Carolina and its districts**

Readiness in one subject based on benchmark

- English test takers: 51,772*
- Cohorts scoring 18 or higher: 19,777
- Percent ready = 19,777/51,772 = 0.382 **= 38.2% or 38%**

■ **South Carolina and its districts**

Readiness based on the composite score of 20

- Number tested: 51,772*
- Composite score of 20 or higher: 16,826
- Percent ready = 16,826/51772 = 0.325 = **32.5% or 33%**

*Number might vary slightly because it is an average of the four subjects

14.1 Introduction: ACT-Tested High School Eleventh Graders, cont'd

The data in Table 14.1 list the ACT benchmark minimum scores for the four subject areas and STEM. The student's score benchmark scores in Table 14.1 As previously stated, the composite score is the average of the four subjects' average. These are the minimum scores a student needs to meet to be considered college ready. The student's ACT score is a scaled score that is converted from a raw score. For example, if a student scored an 18 (scaled score) or higher in English, then that person is considered ready in English. The percentage ready in English is the number of test takers who scored 18 or higher in English (numerator) divided by the number who completed the English portion of the ACT (denominator).

The data in Table 14.2 are included in this section to give the reader some indication of the numbers as he or she examines the graphs on the pages for eleventh graders. The criteria for eleventh graders are the same as those for graduating seniors.

Table 14.1. ACT Benchmark Standards

College Courses	ACT Subject Area	ACT Benchmark
English Composition	English	18
College Algebra	Mathematics	22
Social Studies	Reading	22
Biology	Science	23
STEM	STEM*	26

*STEM score is based on the mathematics and science benchmarks

Source: ACT Inc.

Table 14.2: Number of students tested by demographics*

Description	South Carolina	Horry County Schools	Georgetown County School District
Number Tested	51,772	3,043	704
Male	25,557	1,515	357
Female	26,103	1,520	346
Hispanic or Latino	3,713	258	41
American Indian or Alaska Native	150	7	
Asian	867	39	2
Black or African American	17,459	588	292
Native Hawaiian or Other Pacific Islander	71	4	1
White	27,822	1,995	365
Two or more races	1,502	140	2

Source: South Carolina Department of Education

*The numbers are average; therefore, they will not add up to the exact totals for state and districts. The reason is that the number of test takers varied across the four subject areas.

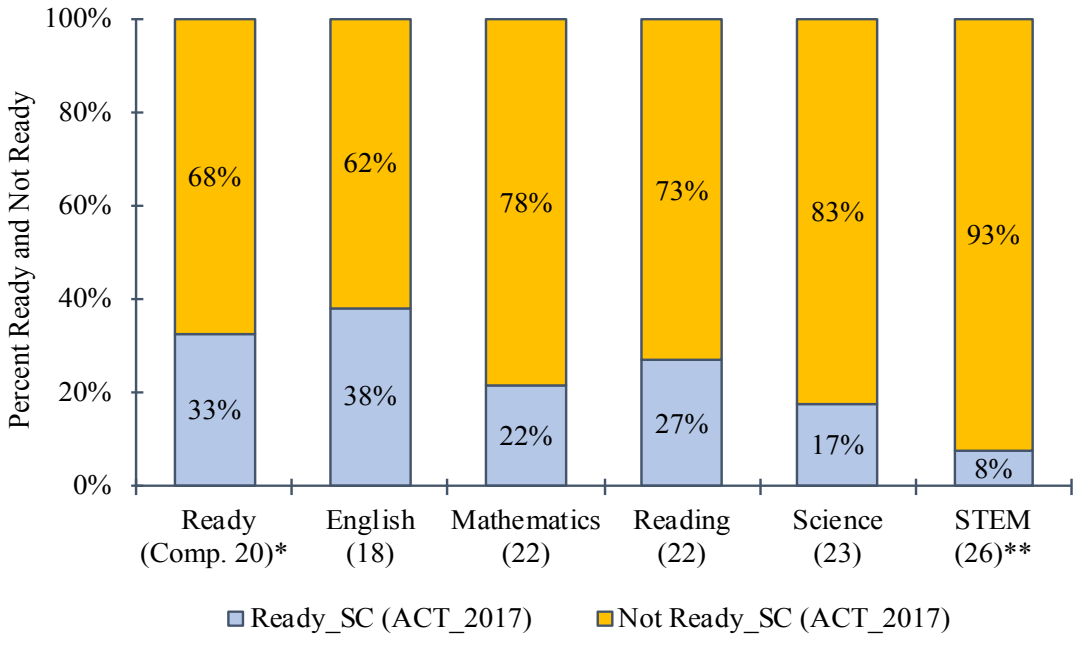
14.2 Percentage Ready and Not Ready—ACT-Tested Eleventh Graders

The percentage ready means readiness for college or career as illustrated in the graph in Figure 14.1. The percent ready indicates the percentage of students in that particular subject that met the benchmark. Each benchmark minimum score is in parentheses along with the name of the subject. The composite score is the average of the four subjects. Each state determines how to use the composite score to assess college readiness. South Carolina has established that a composite score of 20 or higher is considered ready for 2017. Therefore, the percentage ready of 33% in Figure 14.1 is based on a composite score of 20 for South Carolina college readiness standards. The 33% was computed by dividing the number of ACT test takers in South Carolina whose composite scores were 20 or higher by the total number of ACT test takers in South Carolina. At the national level, the percentage of test takers with a composite score of 20 or higher is 60%. Another state might use a different composite benchmark score for its measurement. Although the state and district-level students shown in this section are third-year high school students, the national data of eleventh graders taking the ACT in 2017 were not made available to compare state and district level scores to the US. Not all states third year students take the test as part of their performance accountability requirements. As of 2017, there were seventeen states requiring eleventh graders to take the ACT as part of their accountability measurements.

STEM percentage ready is determined by dividing the number of students meeting STEM's benchmarks (26 or higher) for algebra and science by the number of test takers.

The benchmark standards for readiness for each discrete subject area remain as shown in Table 14.1. This process makes sense because it is the composite score that most admissions offices, generally, evaluate in terms of and where students fit into their established percentile.

Figure 14.1: South Carolina ACT-tested 11th graders—percentage ready and not ready—2017†

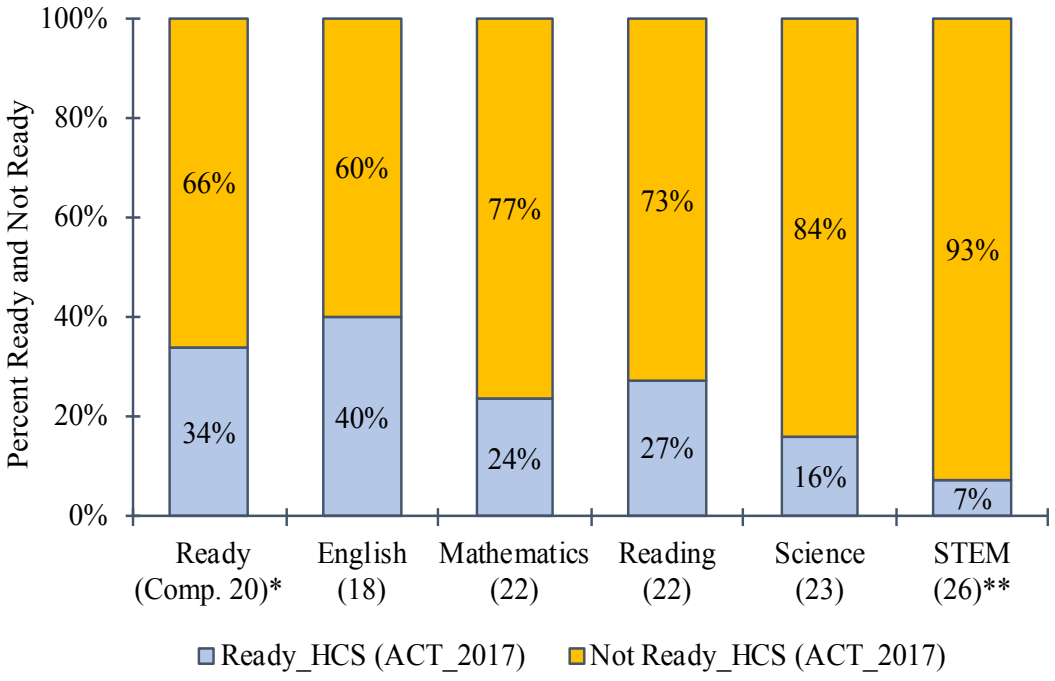


Source: South Carolina Department of Education

†See Table 14.2 for the number of test takers associated with the percentages for each subject.
*Percentage ready is based on South Carolina's composite score of 20 or higher as meeting college readiness benchmark. Percentage ready at the national level based on a composite score of 20 or higher is 60%.
**As determined by science and mathematics scores.

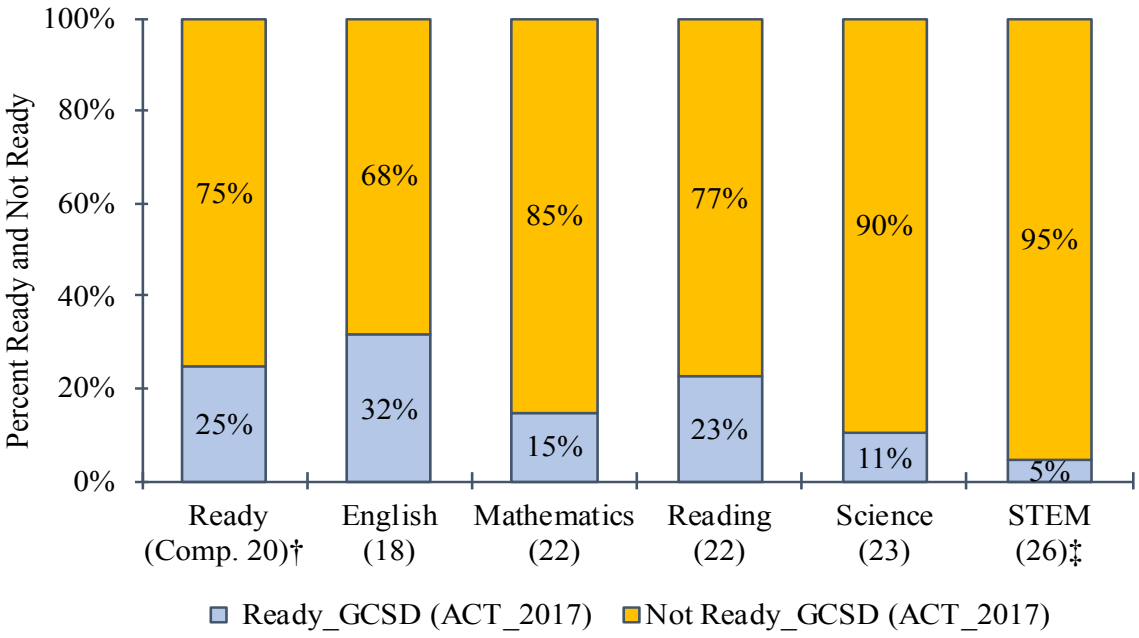
14.2 Percentage Ready and Not Ready—ACT-Tested Eleventh Graders, cont'd

Figure 14.2: Horry County Schools ACT-tested 11th graders—percentage ready and not ready—2017†



Source: South Carolina Department of Education

Figure 14.3: Georgetown County School District ACT-tested 11th graders—percentage ready and not ready—2017†



Source: South Carolina Department of Education

†See Table 14.2 for the number of test takers associated with the percentages for each subject.
*Percentage of students with a composite score of 20 or higher. Percentage ready at the national level based on a composite score of 20 or higher is 60%.
**As determined by science and mathematics scores

14.3 Percentage Ready (SC, HCS, and GCSD)—ACT-Tested Eleventh Graders by Student Demographics

Figure 14.4: English ACT-tested 11th graders—percentage ready by student demographics for SC, HCS, and GCSD—2017‡

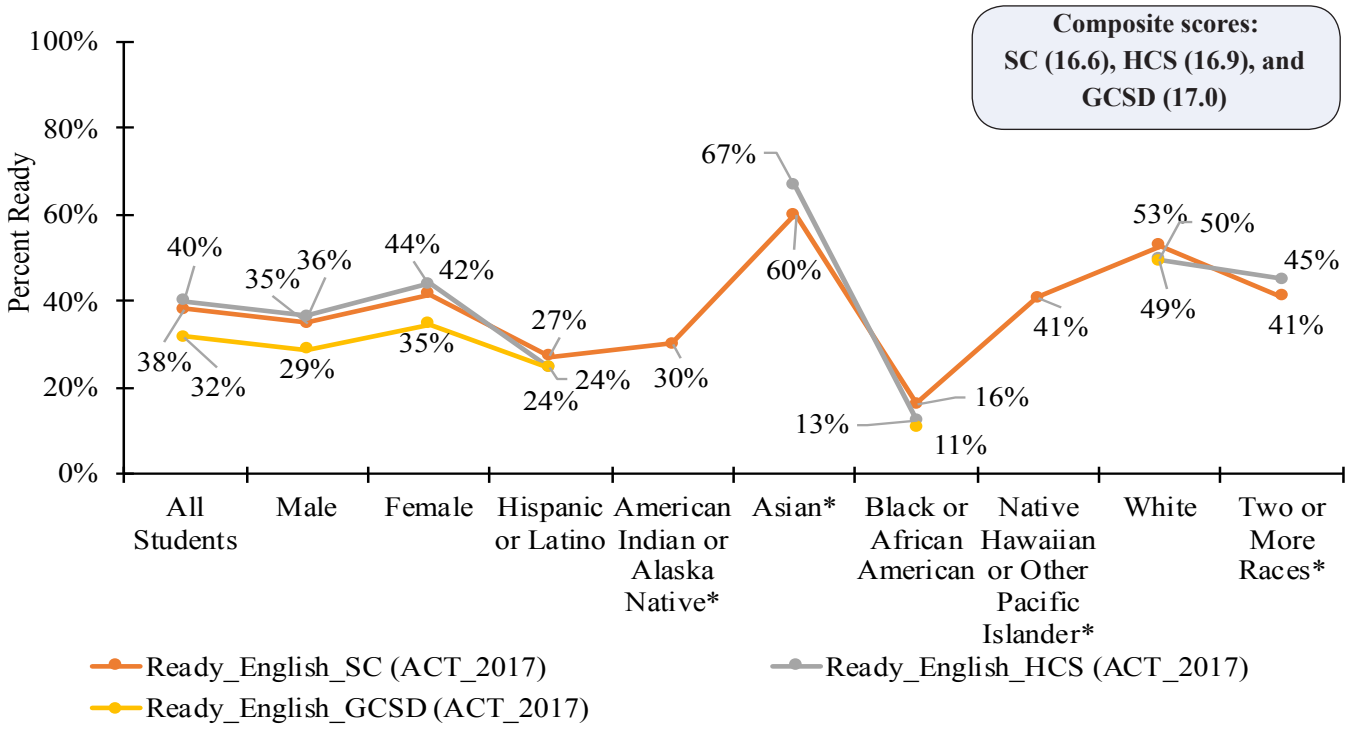
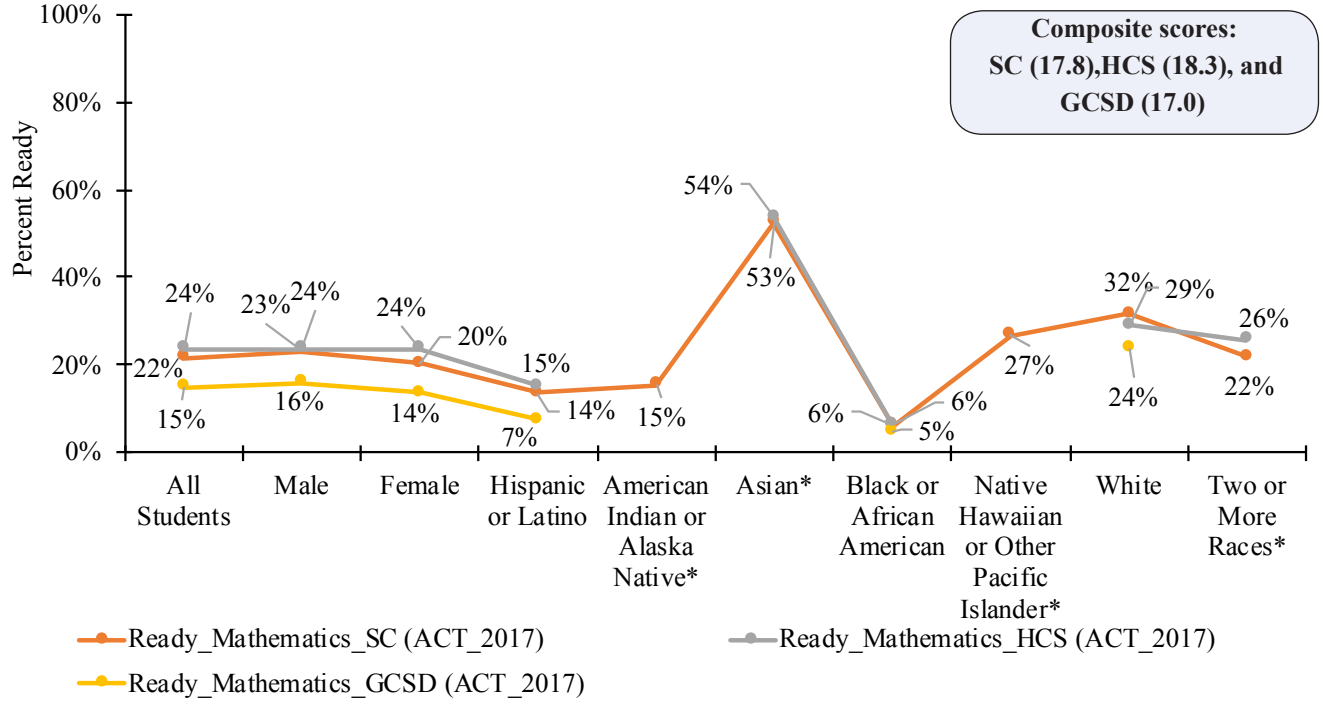


Figure 14.5: Mathematics ACT-tested 11th graders—percentage ready by student demographics for SC, HCS, and GCSD—2017‡

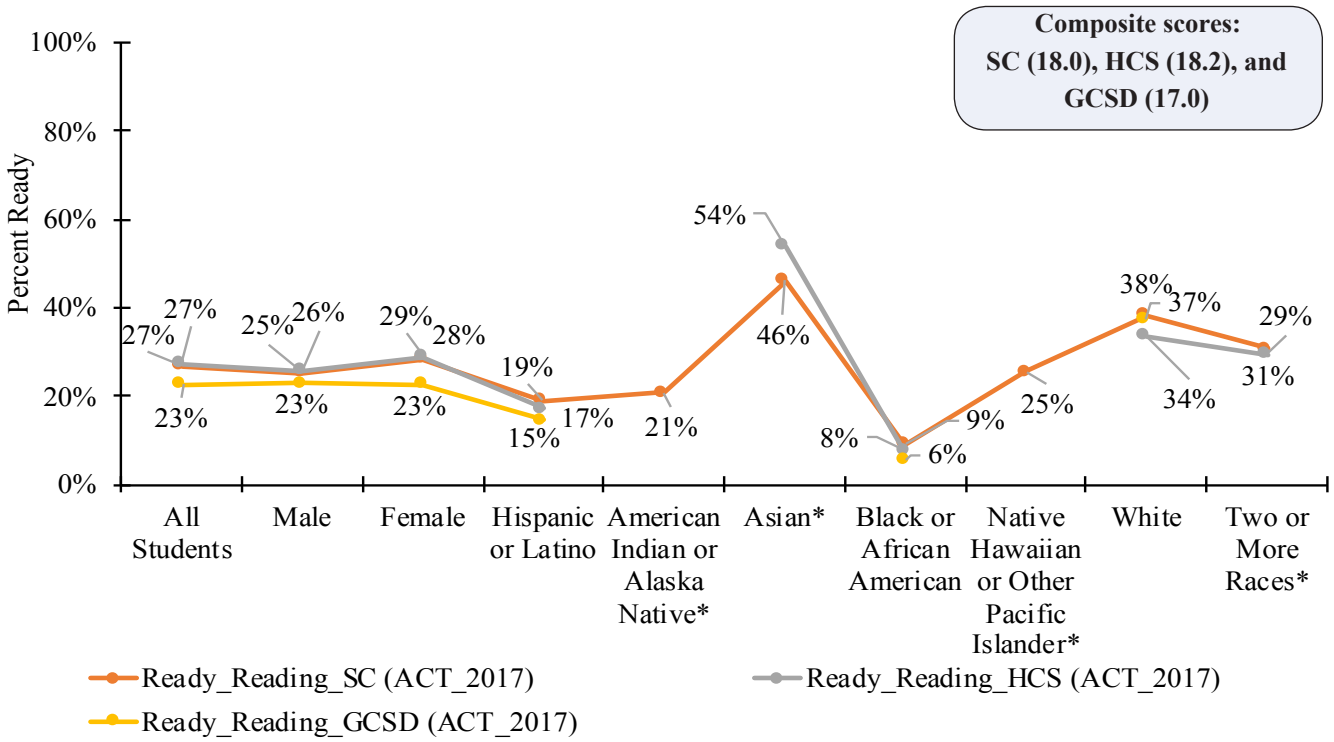


Source: South Carolina Department of Education

†Percentage of students with a composite score of 20 or higher
‡See Table 14.2 for numerical county by demographics
*Percentage is not shown if fewer than 10 people from that group took the test.

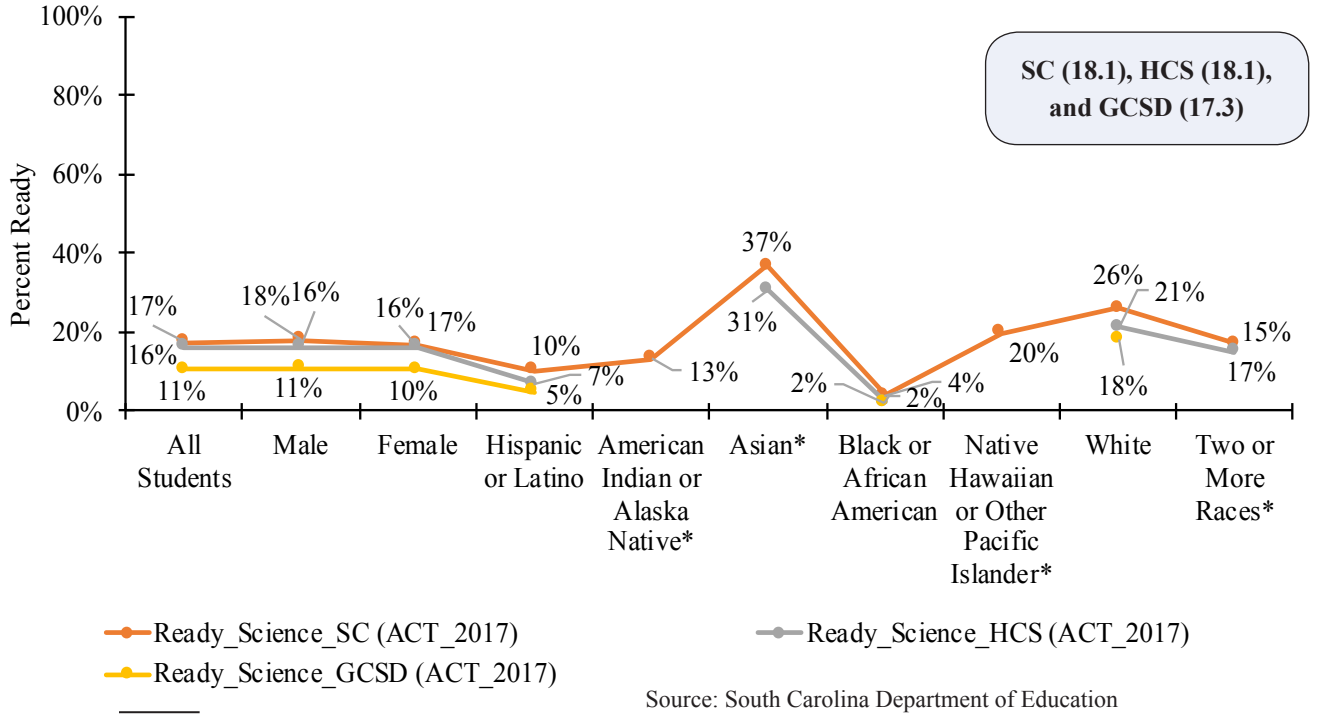
14.3 Percentage Ready (SC, HCS, and GCSD)—ACT-Tested Eleventh Graders by Student Demographics, cont'd

Figure 14.6: Reading ACT-tested 11th graders—percentage ready by student demographics for SC, HCS, and GCSD—2017‡



Source: South Carolina Department of Education

Figure 14.7: Science ACT-tested 11th graders—percentage ready by student demographics for SC, HCS, and GCSD—2017‡

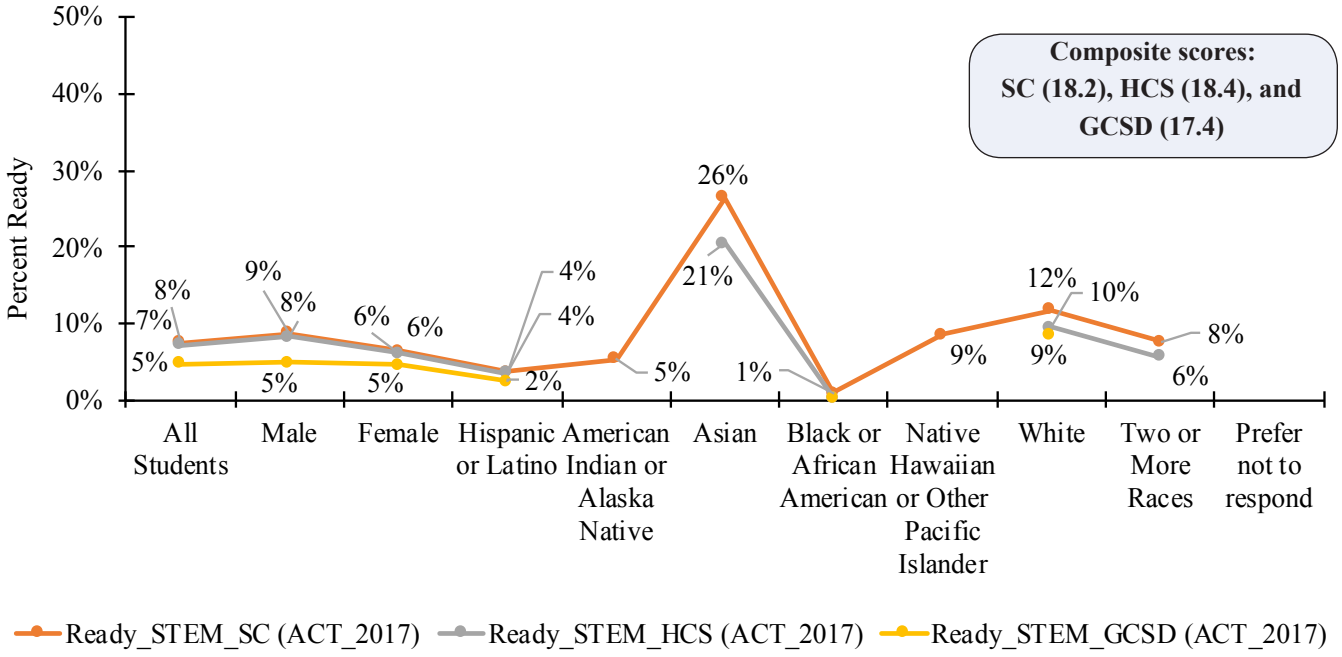


Source: South Carolina Department of Education

‡See Table 14.2 for numerical count by demographics
*Percentage not show if count is fewer than 10 people.

14.3 Percentage Ready (SC, HCS, and GCSD)—ACT-Tested Eleventh Graders by Student Demographics, cont'd

Figure 14.8: STEM ACT-tested 11th graders—percentage ready by student demographics for SC, HCS, and GCSD—2017 ‡**



Source: South Carolina Department of Education

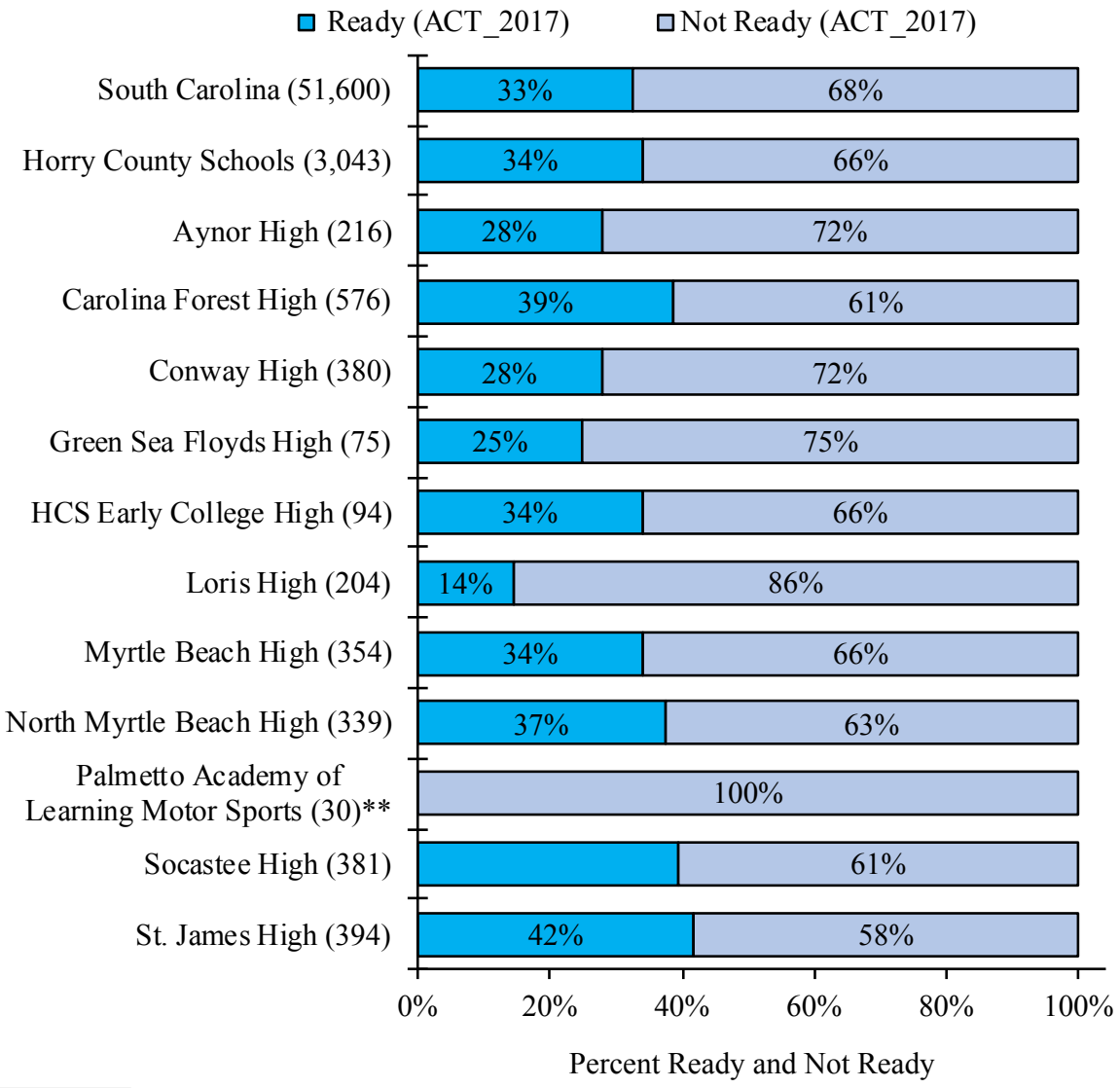
‡See Table 14.2 for numerical count by demographics
*Data not shown for fewer than ten students took the test than five students took the test.
**Because of the low STEM college and career readiness percentages, the y-axis ends at 50%, not 100%.
Also, percentage less than 0.5% are not shown on the graph. As a reminder, STEM composite score is based on the average ACT math and science scores.

14.4 HCS: Percentage Ready and Not Ready by School

The graph (Figure 14.9) profiles the percent of ACT results for Horry County Schools and for individual high schools. The number of eleventh grade test takers is in parentheses after the school's name. The percentage of college and career ready is based on the number of students achieving a composite score of 20. The composite score is the average of all four ACT scores from the four areas of English, mathematics, reading, and science. The composite score of 20 was established by the South Carolina Department of Education based on empirical data. Therefore, the college ready percentage is computed by dividing the number of students with a composite score of 20 or higher by the number of test takers.

This means that a student with a composite score of 20 or higher in the state of South Carolina is deemed college and career ready.

Figure 14.9: HCS ACT-tested 11th graders: percentage ready and not ready by school, 2017*



*Percentage ready at the national level based on a composite score of 20 or higher is 60%.
**This school had zero entered for percent ready.

14.5 HCS: Comparison of Percentages by School of Those Who Met All Four Benchmarks and Are Ready Based on a Composite Score of 20

Figure 14.10: HCS ACT-tested 11th graders—comparison of percentage meeting benchmark in all four subjects and percent ready by school*

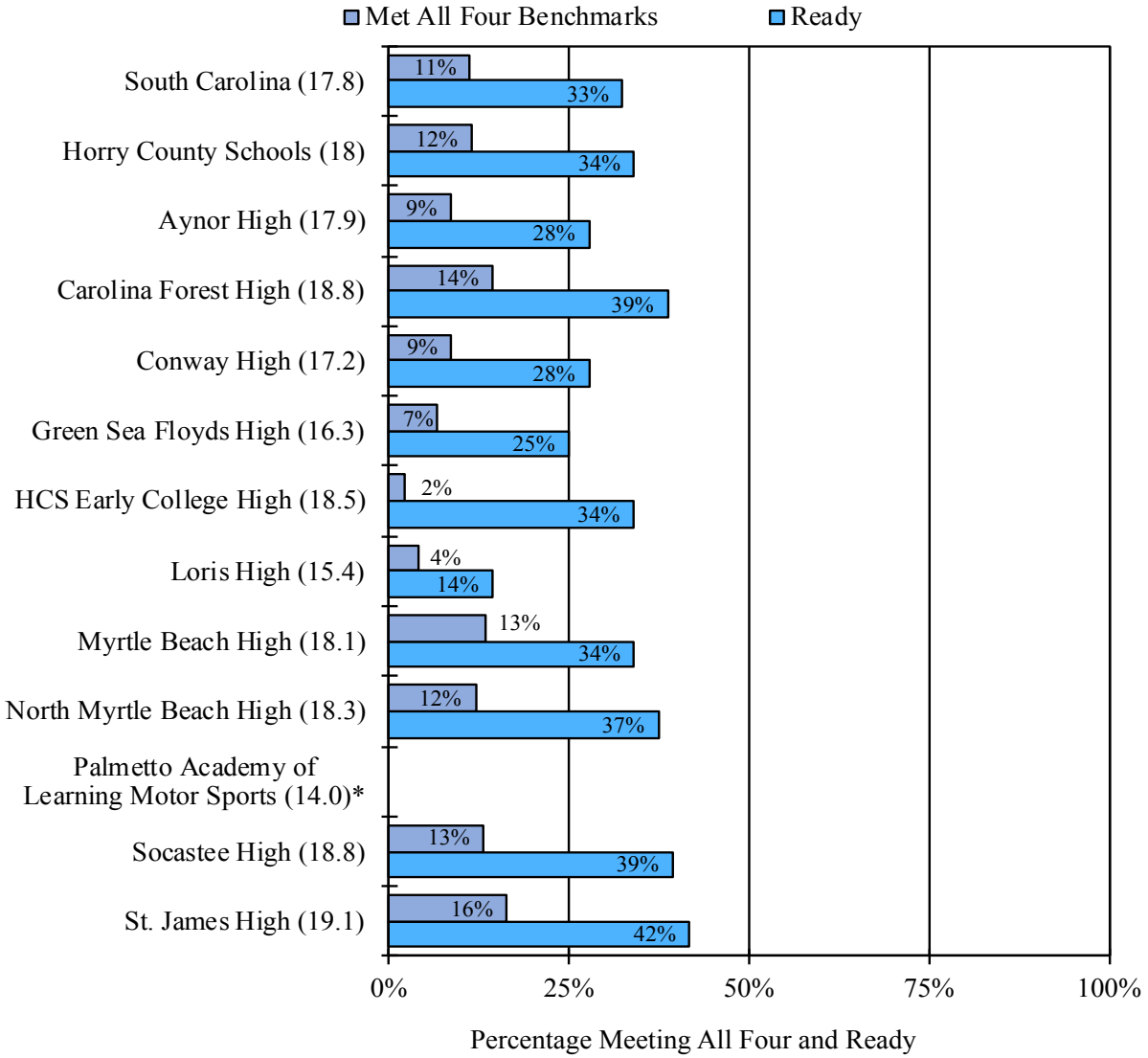


Table 14.3 HCS: Number of eleventh graders who took the ACT test in 2017 by school

Name	Number Tested (2017)	Name	Number Tested (2017)
South Carolina Schools	51,772	Loris High	205
Horry County Schools	3,043	Myrtle Beach High	354
Aynor	216	North Myrtle Beach High	339
Carolina Forest High	576	Palmetto Academy of Learning Motor Sports	30
Conway High	380	Socastee High	381
Green Sea Floyds High	75	St. James High	394
HCS Early College High	94		

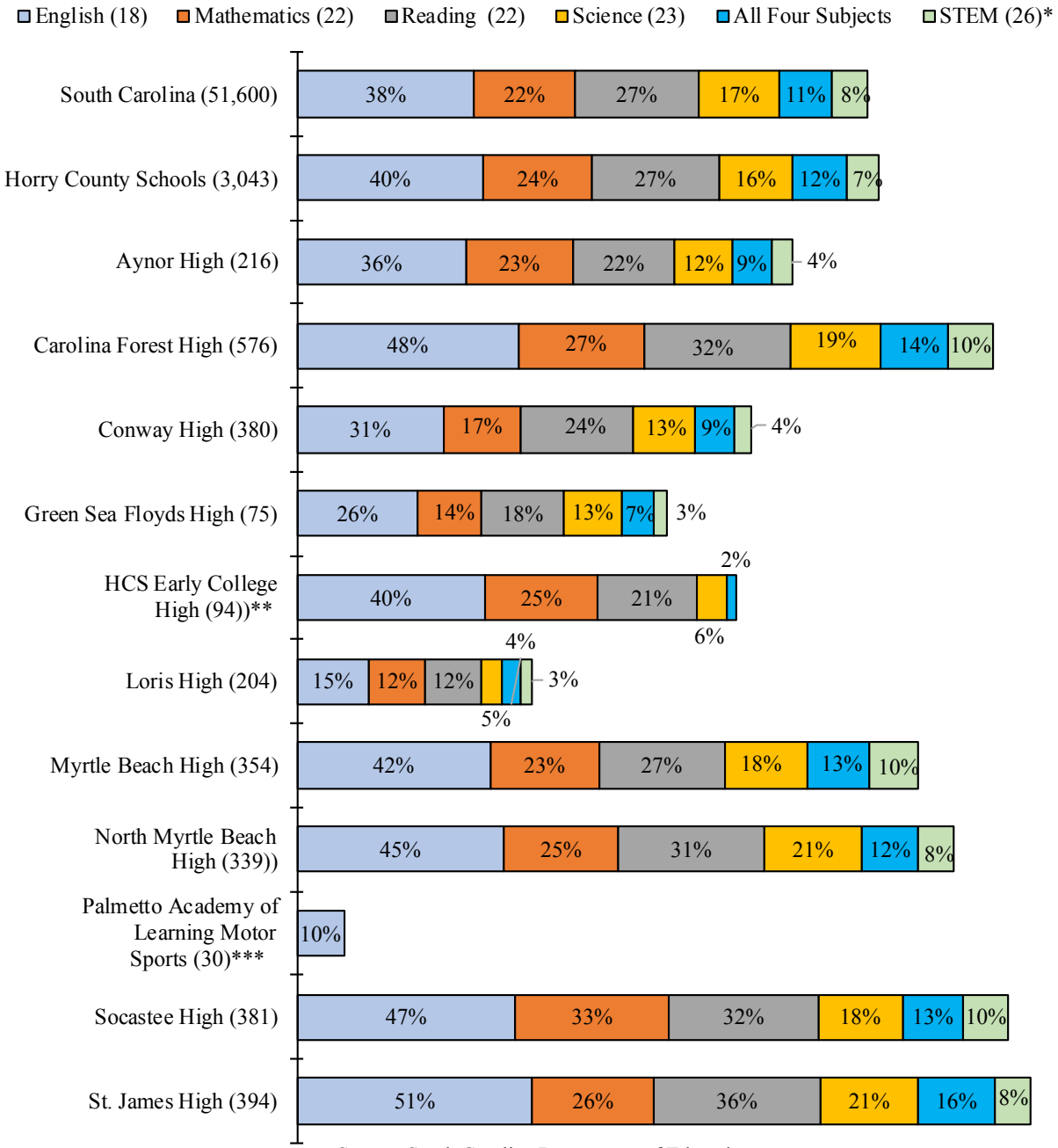
Source: South Carolina Department of Education and ACT®

*Percentage ready at the national level based on a composite score of 20 or higher (60%) and percentage at the national level meeting benchmarks in all four subject areas (31%).

14.6 HCS: Comparison—Percentage Compilation by School of Those Ready by Subject Area, All Four Benchmarks, and STEM

The graph in Figure 14.11 depicts the percentage ready in each subject, meeting benchmark for all four subject areas, and STEM by school. The stacked bar graph is not intended to add up to 100% because the segments per bar are from different subpopulations. The number of eleventh grade test takers is in parentheses after each school's name.

Figure 14.11: HCS ACT-tested 11th graders—percentage ready per benchmark subject area, met ready in all four areas, and STEM



Source: South Carolina Department of Education

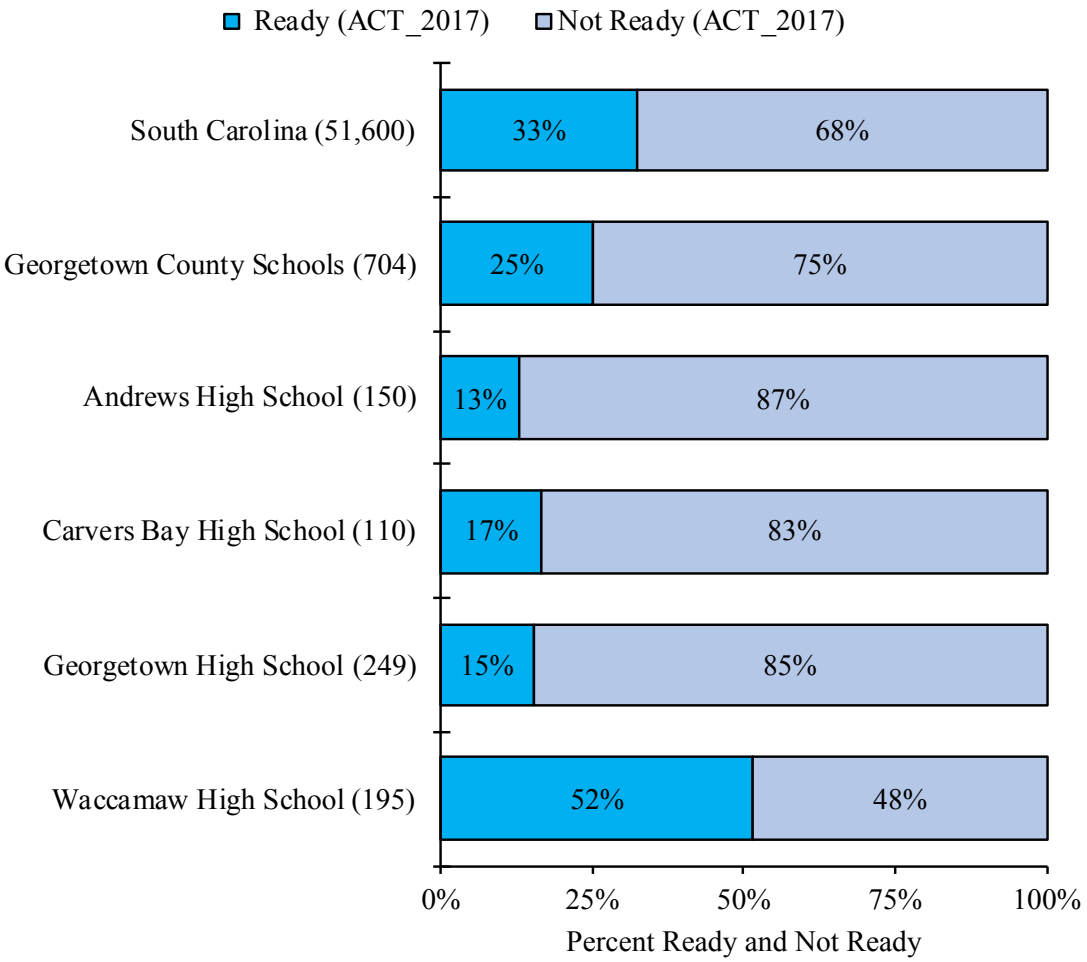
*STEM benchmark is based on the composite score for mathematics and science scores combined equal to a score of 26 or higher.
**A Zero percent was entered for this school's STEM readiness.
***English was the only entry above zero percent for this school.
†Percentage ready at the national level in all four subject areas is 31%.

14.7 GCSD: Percentage Ready and Not Ready by School

The graph (Figure 14.12) profiles the percentage of ACT results for Georgetown County School District and its high schools. The number of eleventh grade test takers is in parentheses after the school's name. The percentage of college and career ready is based on the number of students achieving a composite score of 20. The composite score is the average of all four ACT scores from the four areas: English, mathematics, reading, and science. The composite score of 20 was established by the South Carolina Department of Education based on empirical data. Therefore, the college ready percentage is computed by dividing the number of students with a composite score of 20 by the number of test takers.

This means that a student with a composite score of 20 in the state of South Carolina is deemed college and career ready.

14.12 GCSD ACT-tested 11th graders—percentage ready and not ready by school—2017*

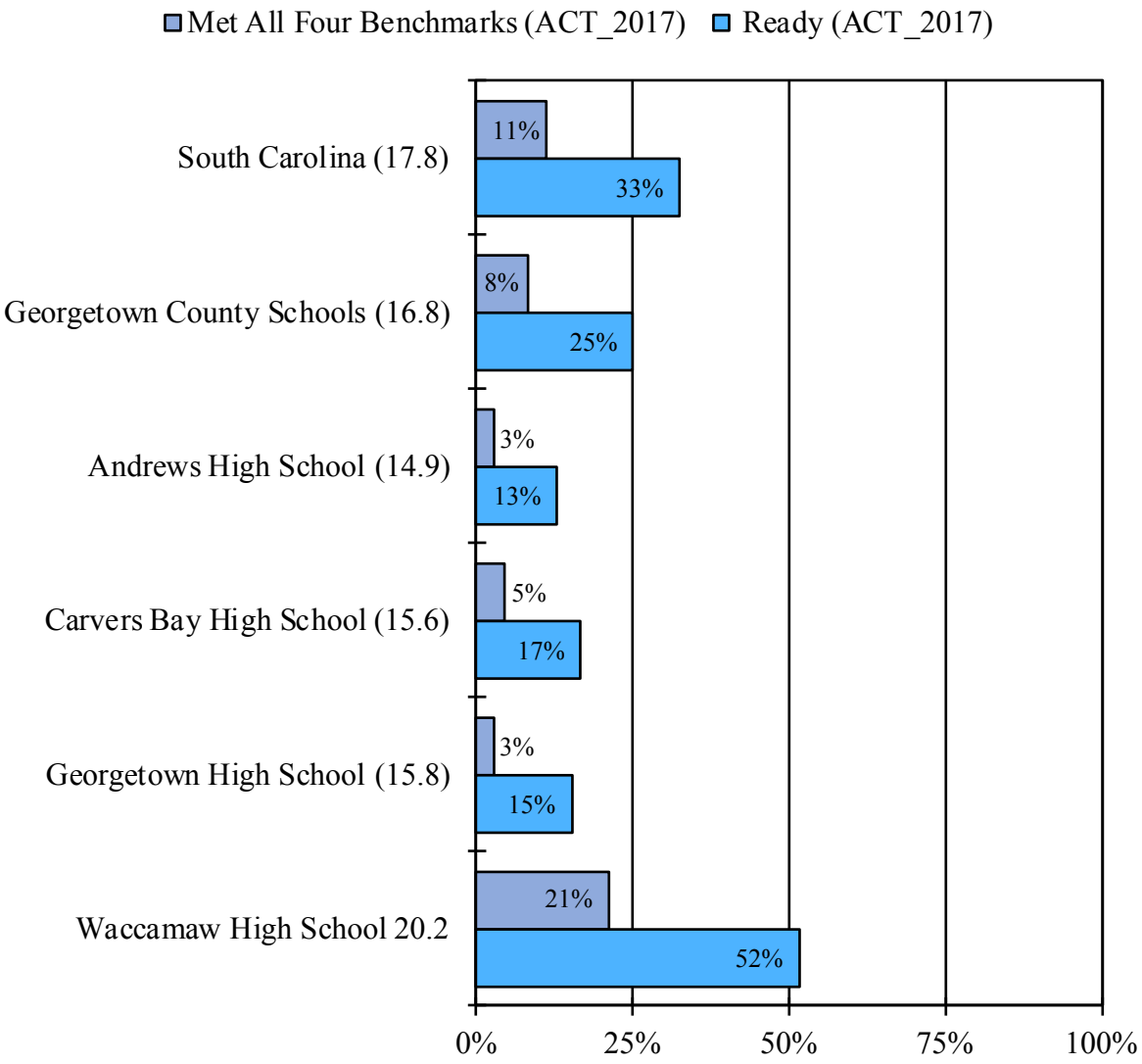


Source: South Carolina Department of Education and ACT, Inc.

*Percentage ready at the national level based on a composite score of 20 or higher is 60%.

14.8 GCSD: Comparison of Percentages by School of Those Who Met All Four Benchmarks and Are Ready Based on a Composite Score of 20

Figure 14.13: GCSD: ACT-tested 11th Graders—percentage meeting benchmarks in all four tests and college ready



Source: South Carolina Department of Education and ACT, Inc.

Table 14.4.GCSD: Number of juniors (11th graders) who took the ACT test in 2017 by school

Name	Number Tested (2017)
South Carolina	51,772
Georgetown County School District	704
Andrews High	150
Carvers Bay High	110
Georgetown High	249
Waccamaw High	195

*Percentage ready at the national level based on a composite score of 20 or higher (60%) and percentage meeting benchmarks in all four subject areas (31%).

14.9 GCSD: Comparison—Percentage Compilation by School of Those Who Are Ready by Subject Area, All Four Benchmarks, Overall Readiness, and STEM

The graph in Figure 14.14 profiles the percentage meeting benchmarks in each subject area, all four subject areas, and STEM. The STEM benchmark is the average of science and mathematics, not English and reading. The data includes South Carolina, Horry County Schools, and the Georgetown County School District. The stacked bars associated with a name will not add up to 100% because it is one test with several different subject areas and other criteria. The number of eleventh grade test takers is in parentheses after each school's name.

Figure 14.15: GCSD: ACT tested (11th graders)—percentage meeting benchmarks by subject area, composite score of 20, and all four subject areas*.

Source: South Carolina Department of Education and ACT, Inc.

*Percentage ready at the national level based on a composite score of 20 or higher (60%) and percentage meeting benchmarks in all four subject areas (31%).

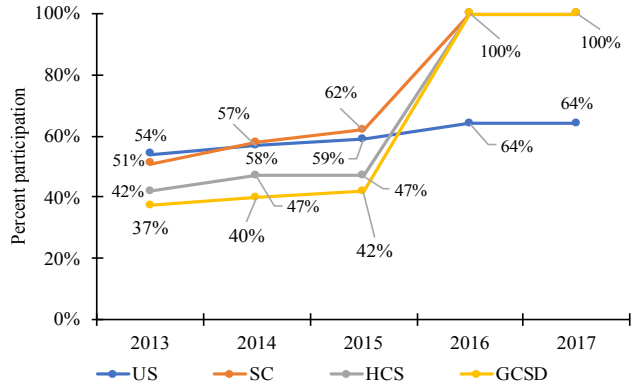
15.1 Introduction: ACT-Tested Graduating Seniors

The graph (Figure 15.1) profiles the percent participation trend in ACT-tested graduating high school seniors for college-and-career readiness from 2013 through 2017. The rapid increase in the participation rate for South Carolina, Horry County Schools, and the Georgetown County School District is due to South Carolina's requirement that all eleventh-grade students or third year of high school take the ACT College-and-Career Readiness examination starting in 2015, which reached full maturity in 2016. South Carolina is listed as one of about a dozen states with 100% participation of its graduating seniors by ACT®. Literature about the test results that are published by ACT® focus on graduating seniors. However, this paper profiled eleventh graders in Section 14 and graduating seniors in Section 15. There were some technical glitches during the 2017 testing. However, the author of this paper performed various statistical models testing on South Carolina ACT test results and found no statistical evidence that the situation had a negative impact on student performance in South Carolina, the Horry County Schools, and the Georgetown County School District. The 2017 results were compared to those of 2016 with no indication of aberration other than normal variation.

Although the difference between South Carolina graduating seniors' composite scores in 2016 and 2017 is statistically insignificant, the state experienced a percentage increase of students who met benchmarks in all four subject areas, from 14% to 15%. This increase equates to about 460 more graduating seniors meeting benchmarks in all four subject areas. The eleventh graders fared even better. In 2016, 9.3% met all four benchmarks, and in 2017, this number increased to 11.3%, which equates to about 1,600 more eleventh graders meeting benchmarks in all four subject areas in 2017.

As a reminder, only graduating seniors' ACT scores are included in this section. *The state did not make ACT metrics for graduating seniors by demographics available to the general public.*

Figure 15.1: ACT-tested graduating seniors' participation rate trend for US, SC, HCS, and GCSD—2013 through 2017*



*SC, HCS, and GCSD participation rates are 100%. The graph lines (Figure 15.1) for the group are superimposed, which looks like one line from 2016 to 2017.

Figure 15.2: ACT-tested graduating seniors' percentage ready trend for US and SC—2013 through 2017*

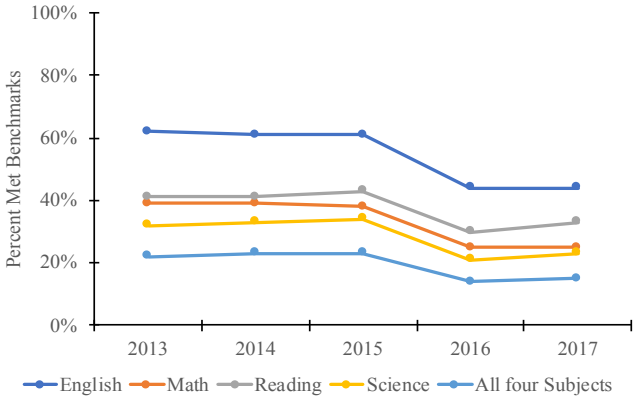


Table 15.1 Data for Figure 15.2

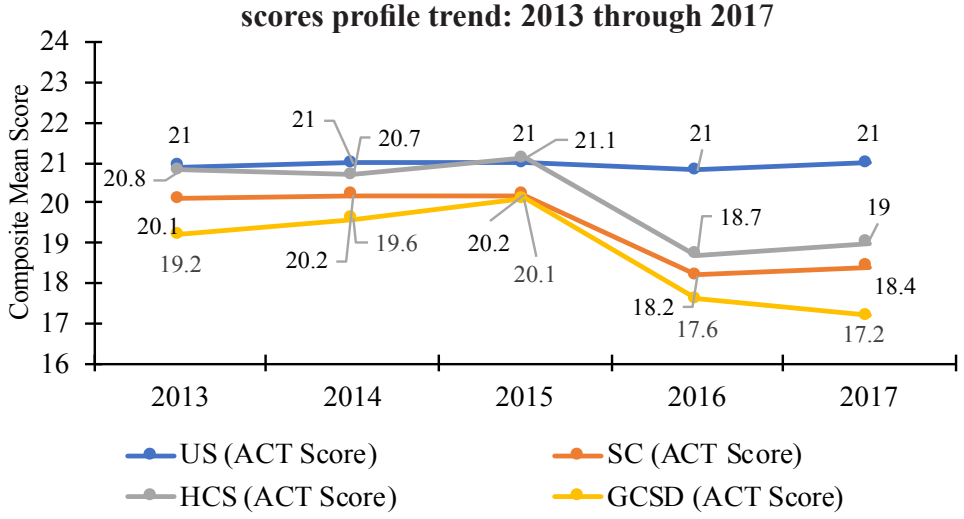
Subject	2013	2014	2015	2016	2017
English	62	61	61	44	44
Math	39	39	38	25	25
Reading	41	41	43	30	33
Science	32	33	34	21	23
All Four Subjects	22	23	23	14	15

Source: South Carolina Department of Education and ACT Inc.

15.1 Introduction—ACT-Tested Graduating Seniors, cont'd

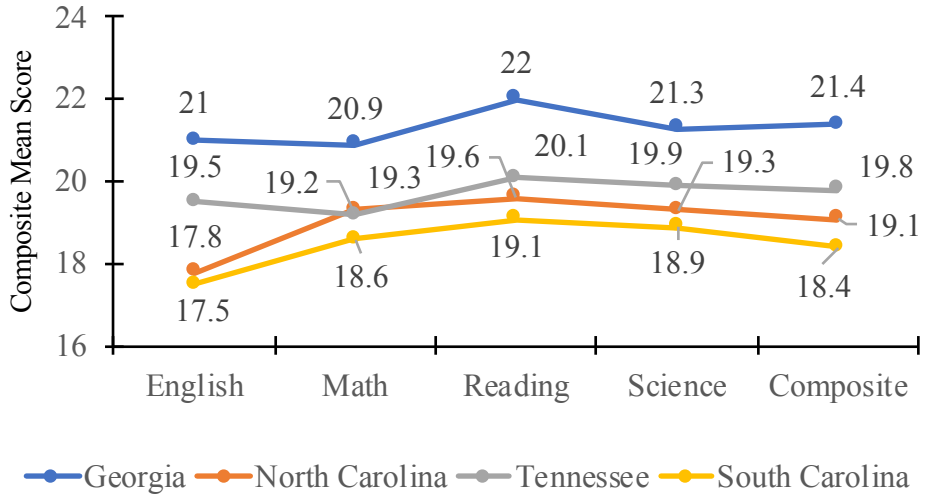
The graph in Figure 15.3 depicts a rapid decrease in test scores when all graduates were required to take the ACT test starting in 2016 reached 100% participation (Figure 15.1). In Figure 15.3 (*neighbor states*), Georgia is the only one of the four states with 55% of graduating seniors who took the test, whereas participation in North Carolina, Tennessee, and South Carolina was 100% of all seniors. ACT® officials said the decrease in scores (Figure 15.3) from 2015 to 2016 can be attributed to the surge in the number of graduating senior test takers in 2016. Only 55% of Georgia's graduating seniors took the ACT, and the difference is stark compared to states with 100% participation (Figure 15.4). Although the composite scores for South Carolina and the Horry County Schools increased slightly from 2016 to 2017, this improvement is statistically insignificant, which means that there is no difference between the 2016 and 2017 test results. The sample size of schools for the Georgetown County School District is too small to draw inferences with any reasonable level of statistical confidence.

Figure 15.3: ACT-tested high school graduate composite scores profile trend: 2013 through 2017



Source: South Carolina Department of Education and ACT, Inc.

Figure 15.4: ACT-tested high school graduating seniors' composite scores of the four neighboring states

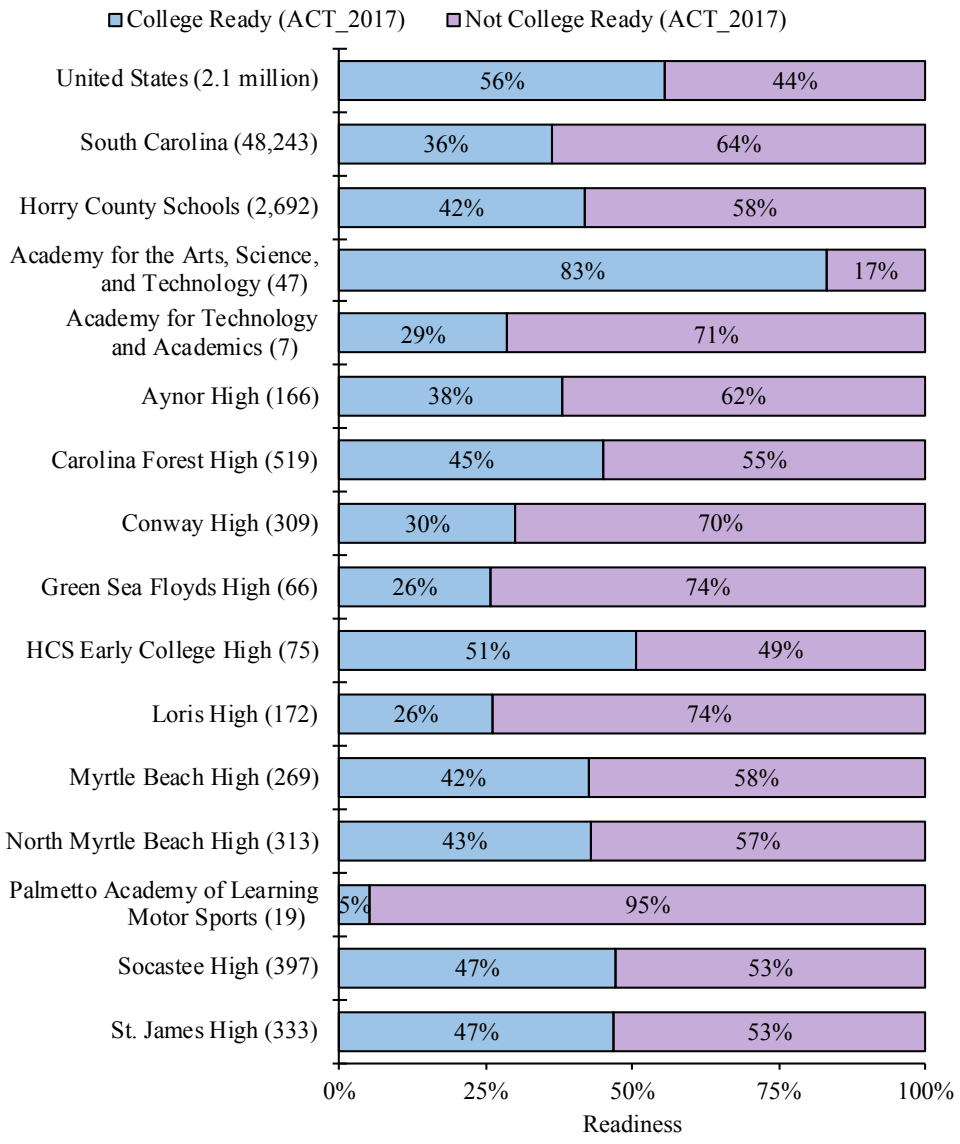


Source: South Carolina Department of Education and ACT®

15.2 HCS: Percentage Ready and Not Ready by School

The graph (Figure 15.5) profiles the percentage distribution of graduating seniors who are college ready and not college ready based on the ACT scores. South Carolina has established a composite score of 20 indicating college ready. The college ready percentage shown for the US depicts the percentage of students nationwide whose composite score was 20 or higher. The percentage ready is computed by dividing the number of students with a composite score of 20 are divided by the number of test takers. For example, 42% of Horry County Schools graduating seniors are college ready, which equates to about 1,130 seniors of the 2,692* graduates who were college ready. The number of graduating sensors who took the ACT is in parentheses after the school's name.

Figure 15.5: ACT-tested HCS graduating seniors—percentage ready and not ready by school, 2017



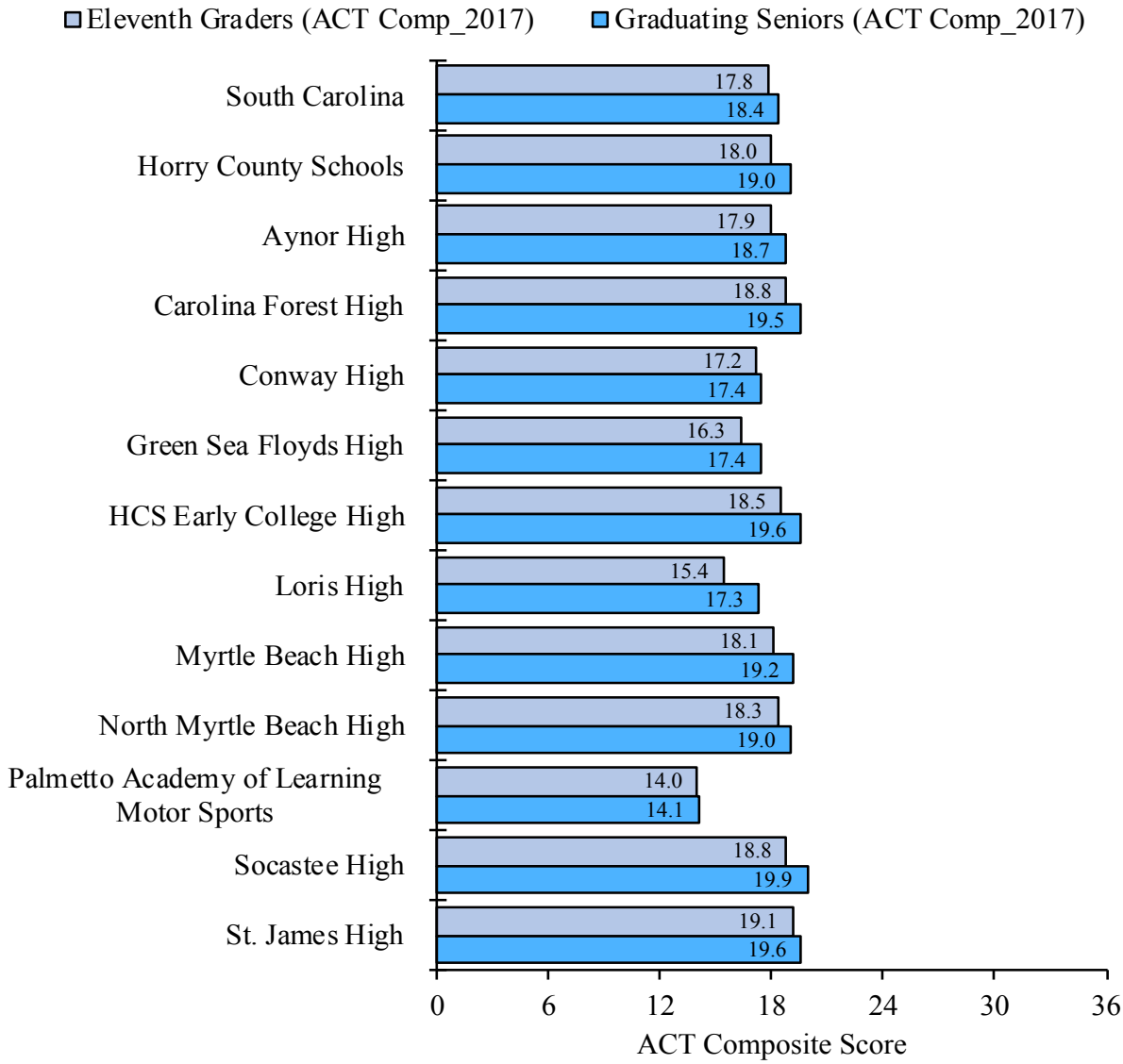
*This number was provided by South Carolina Department that they used to calculate percentages ready. It might vary from other posted numbers.

Source: South Carolina Department of Education and ACT Inc.

15.3 HCS Comparison of Composite Scores of Eleventh Graders and Graduating Seniors

The graph (Figure 15.6) profiles the comparison between Horry County Schools eleventh graders and seniors' ACT composite scores, including those of the individual schools. Although the differences appear small between the two groups, the difference is statistically significant in favor of graduating seniors. This means that the ACT composite scores for seniors are statistically higher than those of eleventh graders. Eleventh graders' scores are not reported nationally; therefore, the comparison of the United States' composite scores for eleventh graders and graduating seniors are not included on the graph below (Figure 15.6). The reporting distinction between eleventh graders and graduating seniors are made at the state and district levels.

Figure 15.6: HCS ACT 2017—comparison of composite ACT scores for eleventh graders and graduating seniors



Source: South Carolina Department of Education and ACT Inc.

15.4 HCS: Composite Score and the Equivalent Percentile Rank by School

A percentile is a value on a scale from zero to 100 that indicates the parameter of a distribution that is equal to or below a particular value. It tells where a score is compared to others. It is not the percentage earned on a test or in other measurement situations. Rather, it shows where one fits compared to others.

An ACT percentile ranking shows how one did compared to everyone else on the test. For example, if an ACT composite score is at the 25th percentile, this means that the student performed better than 25% of those taking the test. Thus, the composite score of 20 places a student in the 51st percentile in 2017, nationally. Also, a college or university (can and many do) set its own percentiles whereas a composite score of 16 is at the 25th percentile, nationally, but the score of 16 could be at the 50th percentile at a less competitive college that has established its own percentile range for ACT scores. For example, a composite score of 25 will rank above the 75th percentile nationally, but at another college or university, a composite score of 25 could rank in the 25th percentile. Therefore, in light of these two examples, it can be misleading if a public school system simply measures its success by the number and percentage of students being admitted or enrolling in a college or university.

Table 15.2 and the graph in Figure 15.6 illustrate the composite score versus percentile for each public high school in Horry County. See Appendix A for assigning profiles to an ACT score.

Table 15.2 Number of cohorts tested, percent ready and not ready, composite score, and percentile

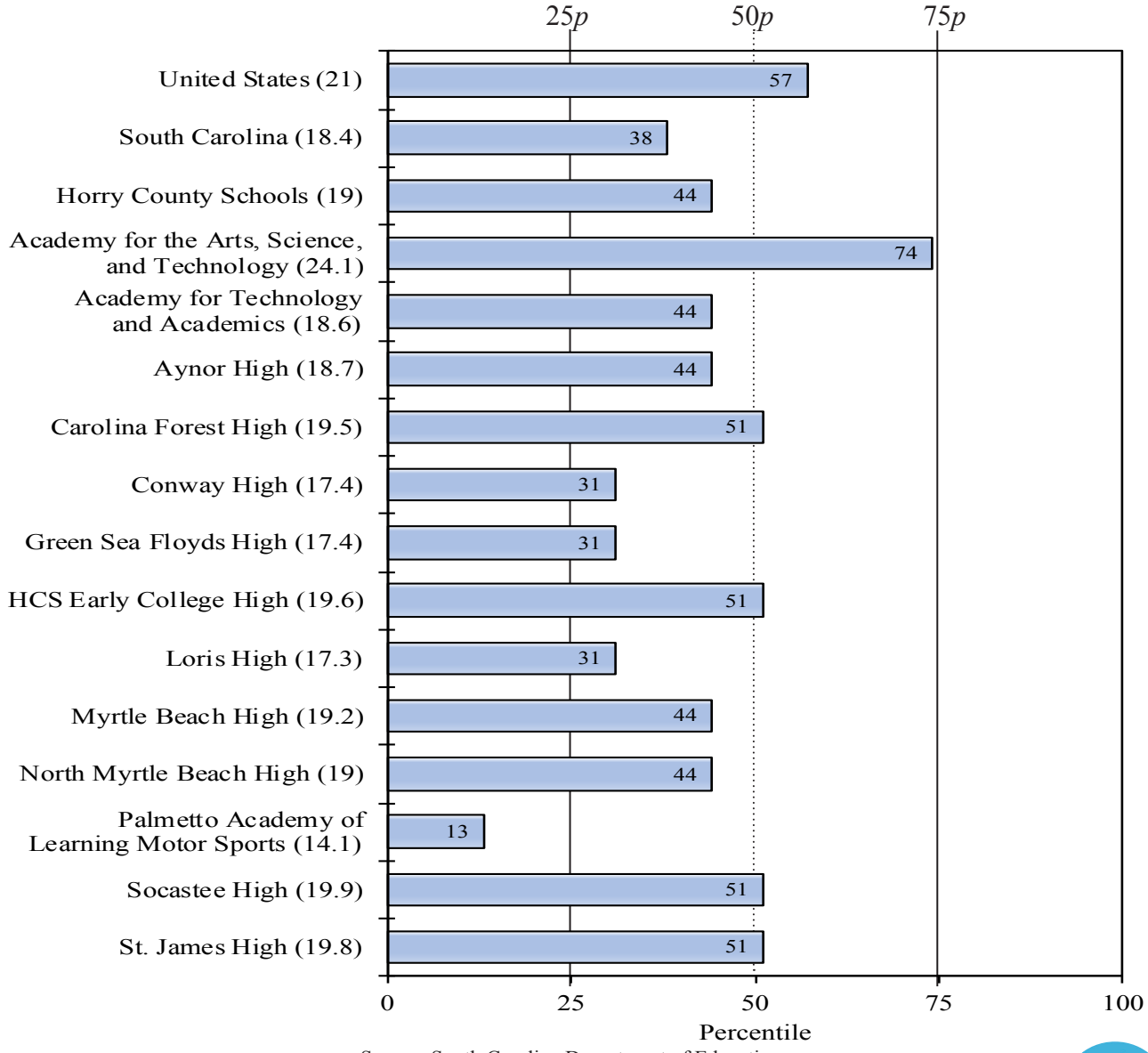
School	Number	Percent College Ready	Percent Not College Ready)	Composite Score	Percentile
United States	2,030,038	56	44	21.0	57
South Carolina	48,363	42	58	18.4	38
Horry County Schools	2,692	42	58	19.0	44
Academy for the Arts, Science, and Technology	47	83	17	24.1	74
Academy for Technology and Academics	7	29	71	18.6	44
Aynor High	166	38	62	18.7	44
Carolina Forest High	519	45	55	19.5	51
Conway High	309	30	70	17.4	31
Green Sea Floyds High	66	26	74	17.4	31
HCS Early College High	75	51	49	19.8	51
Loris High	172	26	74	17.3	31
Myrtle Beach High	269	42	58	19.2	44
North Myrtle Beach High	313	43	57	19.0	44
Palmetto Academy of Learning Motor Sports	19	5	95	14.1	13
Socastee High	397	47	53	19.9	51
St. James High	333	47	53	19.8	51

Source: South Carolina Department of Education and ACT Inc.

15.4 HCS: Composite Score and the Equivalent Percentile Rank by School, cont'd

The graph in Figure 15.7 profiles the percentile of Horry County Schools ACT composite scores for each school's graduating seniors who participated in the 2017 ACT testing. The percentile table was created by ACT® for determining the percentile for each score per subject area and composite ACT scores. For example, South Carolina's composite score is 18.4, which equates to the 38th percentile. This score places the state in the lower half of the 50th percentile relative to its rank for the 2017 ACT test. This means that South Carolina's graduating seniors scored 38% higher than others who took the ACT test nationally. The Academy for the Arts, Science, and Technology performed at the very top of the 50th percentile (74th percentile). This means that 74% of AAST graduating seniors performed better than graduating seniors who took the test nationally. The school was only one point shy of being in the top 25% of students nationally. About 92% of HCS students ranked within the 50th percentile range on the ACT test in 2017.

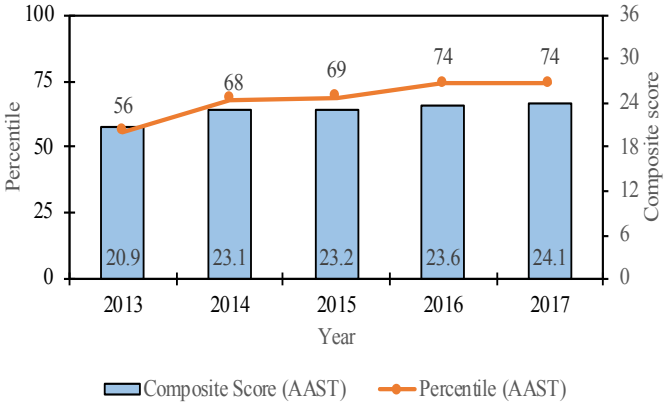
Figure 15.7: HCS ACT tested 2017—percentile relative to composite score by school name



Source: South Carolina Department of Education

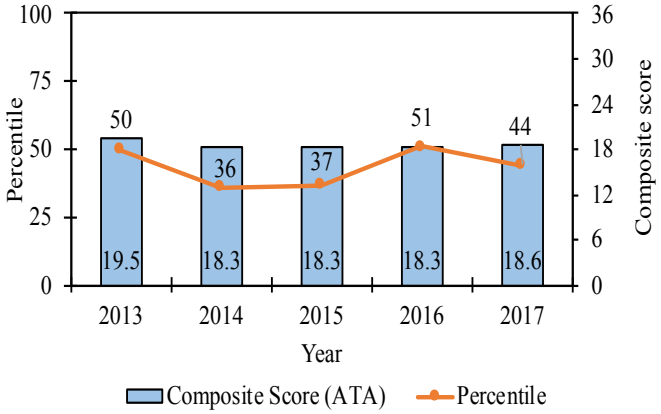
15.5 HCS: Five-Year Trend by School Relative to Their Composite Scores and Percentiles

Figure 15.8: Academy for the Arts, Science, and Technology



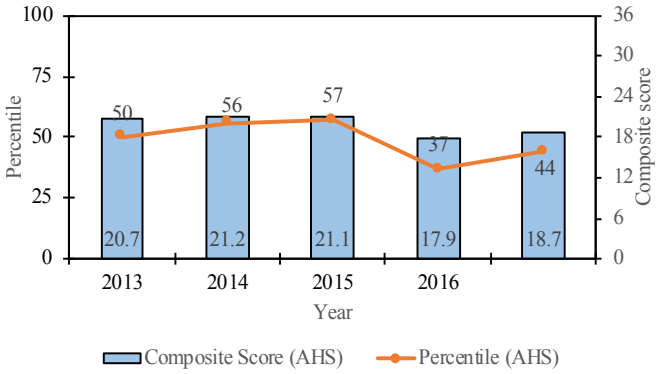
Source: South Carolina Department of Education

Figure 15.9: Academy for Technology and Academics



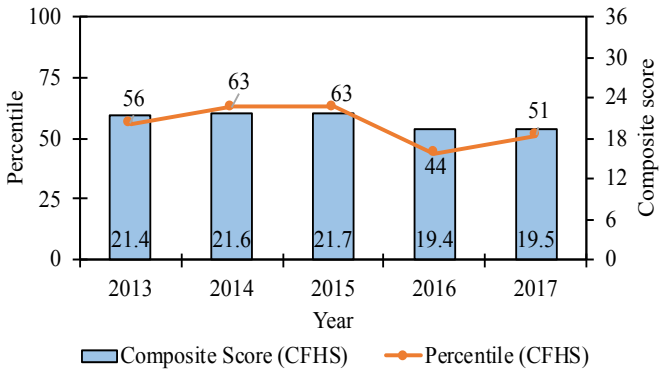
Source: South Carolina Department of Education

Figure 15.10: Aynor High School



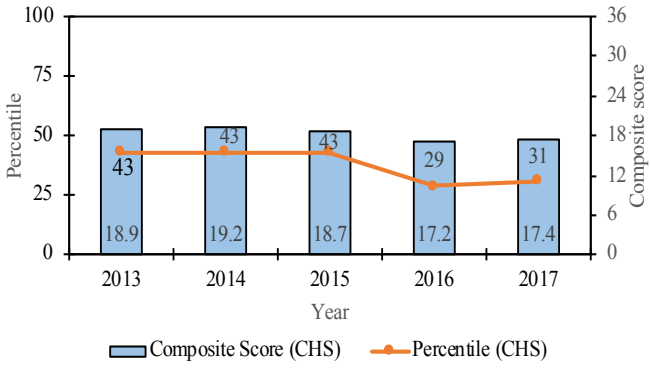
Source: South Carolina Department of Education

Figure 15.11: Carolina Forest High School



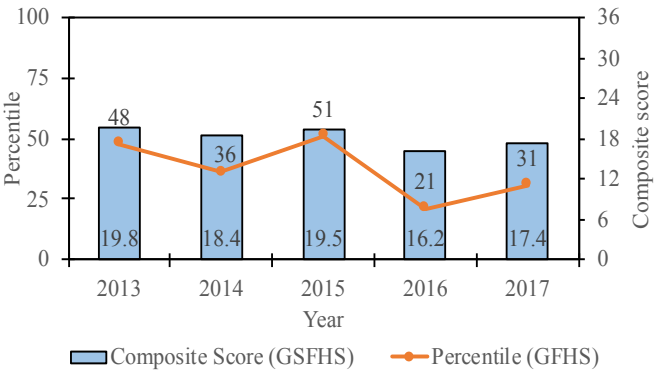
Source: South Carolina Department of Education

Figure 15.12: Conway High School



Source: South Carolina Department of Education

Figure 15.13: Green Sea Floyds High School



Source: South Carolina Department of Education

15.5 HCS: Five-Year Trend by School Relative to Their Composite Scores and Percentiles, cont'd

Figure 15.14: Early College High School*

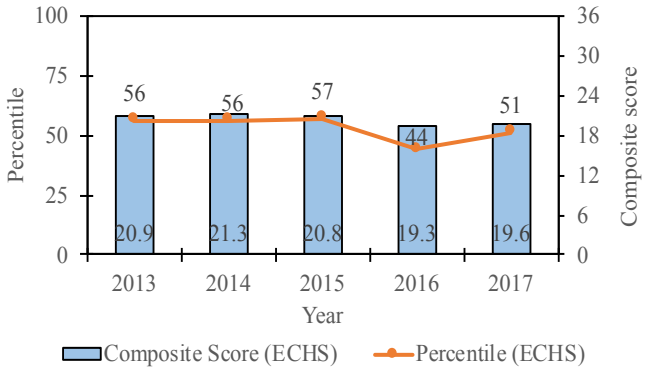


Figure 15.15: Loris High School*

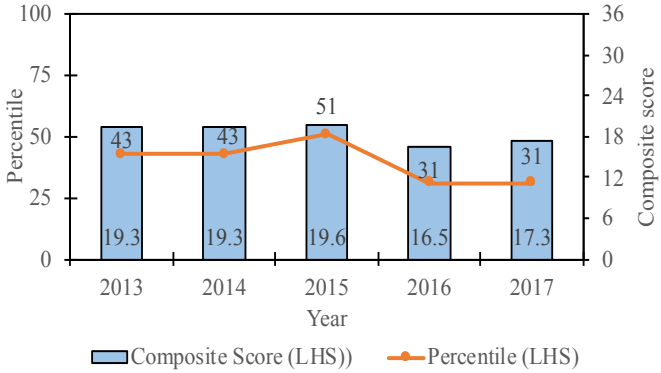


Figure 15.16: Myrtle Beach High School*

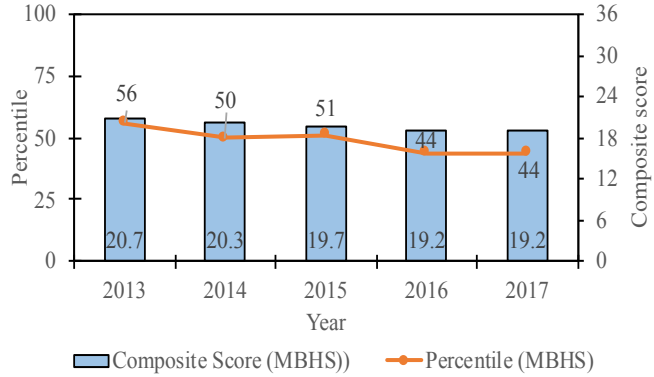


Figure 15.17: North Myrtle Beach High School*

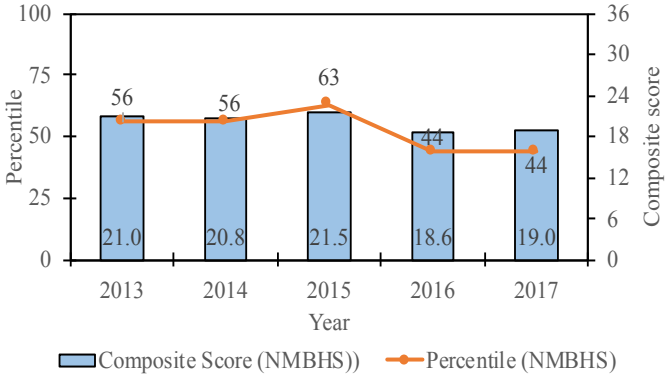


Figure 15.18: Socastee High School*

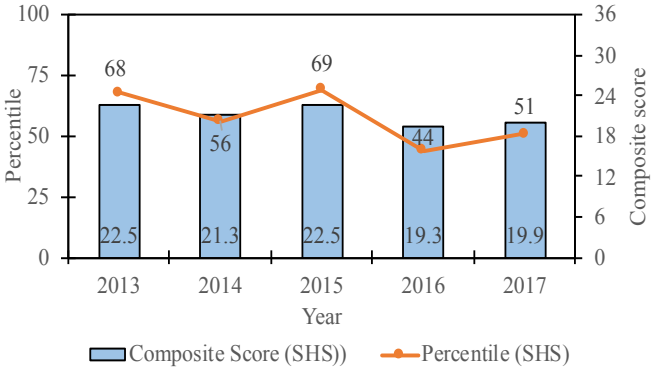


Figure 15.19: St. James High School*

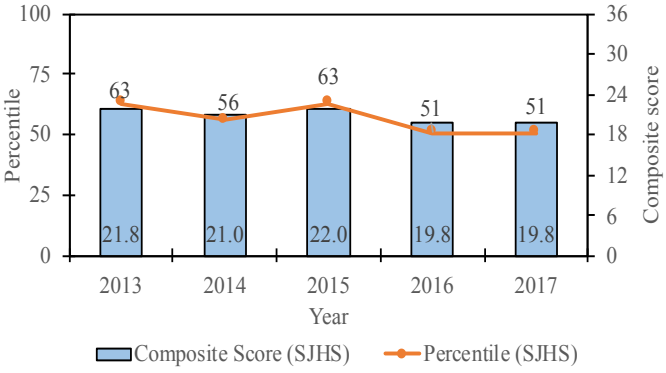
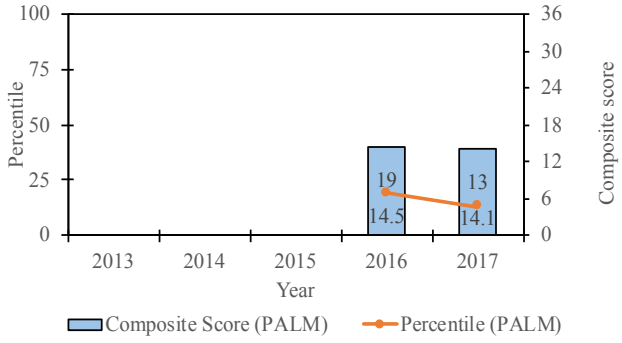


Figure 15.20: Palmetto Academy of Learning Motor Sports**

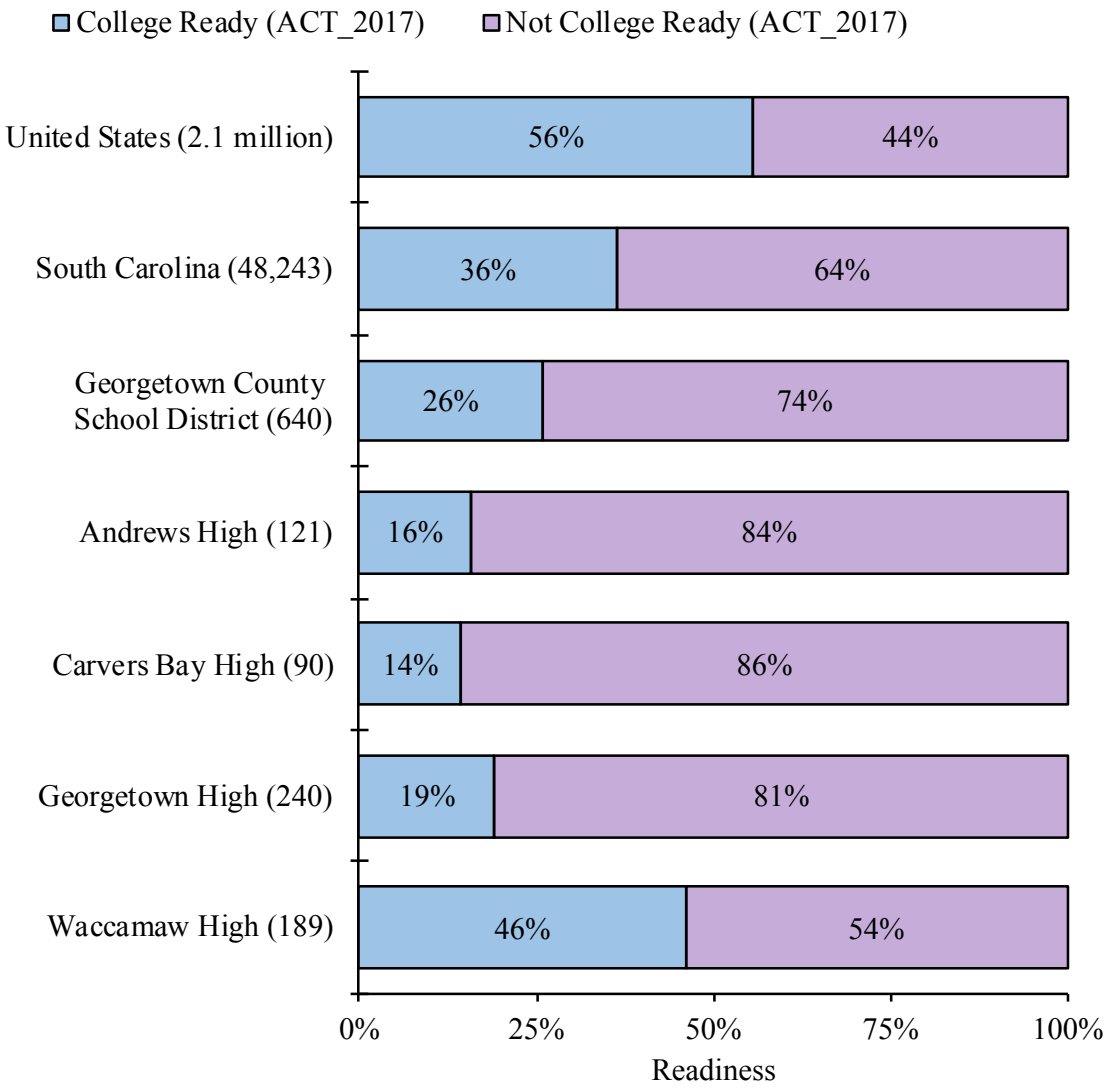


*Source: South Carolina Department of Education
**No available data for 2013, 2014, and 2015

15.6 GCSD: Percentage Ready and Not Ready by School

The graph (Figure 15.21) shows the percentage distribution of graduating seniors ready and not ready for college based on the ACT scores. South Carolina has established a composite score of 20 or higher as indicating college and career readiness. This cut-off score for readiness is based on empirical data that the state used to establish the composite score of 20 or higher. The college ready percentage shown for the United States depicts the percentage of students nationwide whose composite score was 20 or higher. This was done to make the comparison to graduating seniors nationwide compatible with South Carolina. The percentage ready is computed by dividing the number of students with a composite score of 20 or higher by the number of test takers. For example, 26% of the Georgetown County School District's graduating seniors are shown as college ready, which equates to about 166 seniors of the 640 graduates. See Table 15.3. The number graduating seniors test takers is in parentheses after the school's name (Figure 15.21).

Figure 15.21 GCSD ACT-tested graduating seniors—percentage ready and not ready by school, 2017

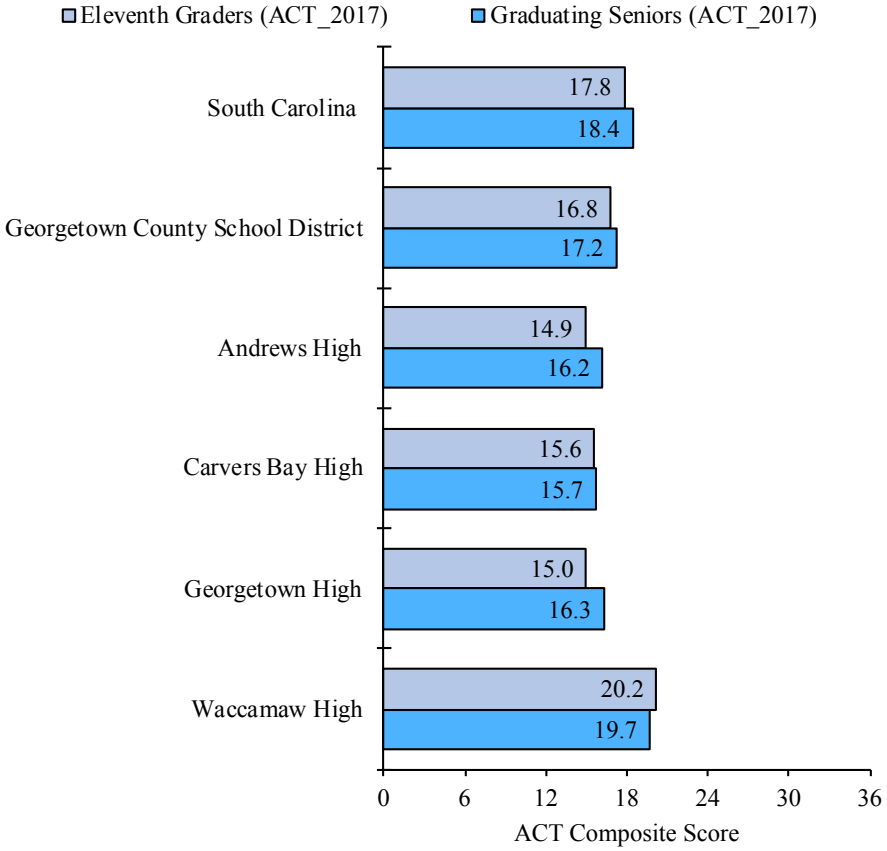


Source: South Carolina Department of Education and ACT Inc.

15.7 GCSD: Comparison of Eleventh Graders' and Seniors' Composite Scores

The graph (Figure 15.22) shows the comparison between eleventh-grade and senior ACT test takers in 2017 on Georgetown County School District composite scores for each school. The differences between the two groups are small and statistically insignificant. This means that the ACT composite scores for seniors are statistically the same as those of the eleventh graders.

Figure 15.22: Georgetown County School District ACT 2017—comparison of composite ACT scores of eleventh graders and graduating seniors



Source: South Carolina Department of Education and ACT Inc.

Table 15.3 Number of graduating senior cohorts tested, percent ready and not ready, composite score, and percentile—2017

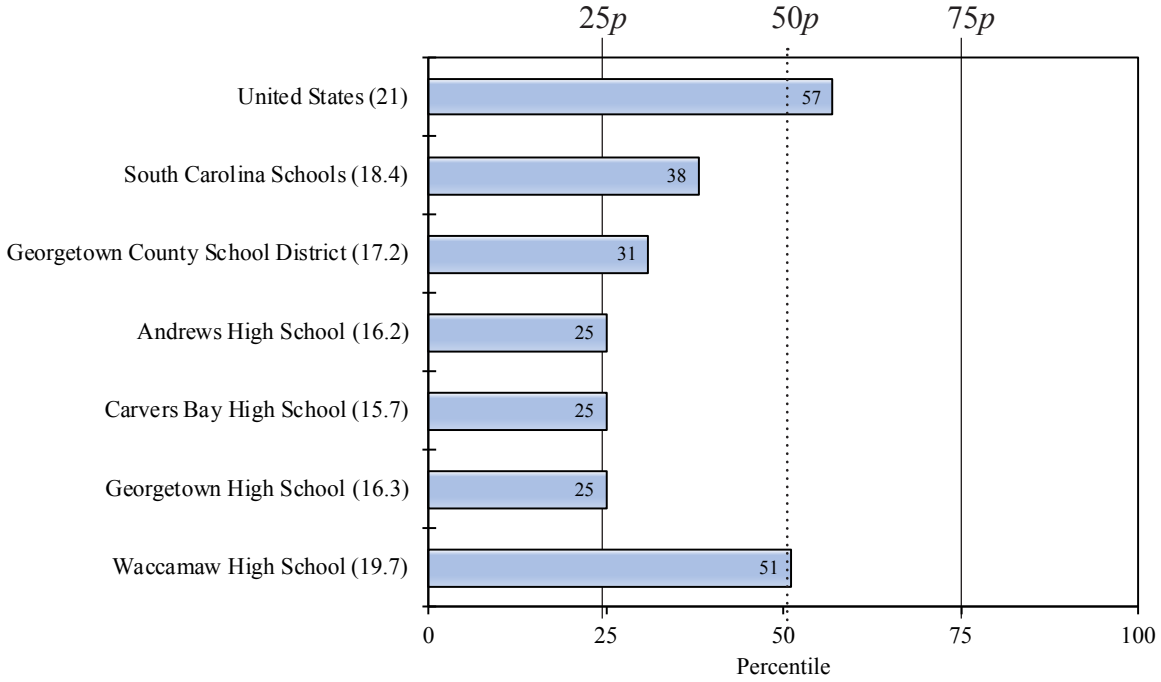
Name	Number	Percent College Ready	Percent Not College Ready	Composite Score	Percentile
United States	2,030,038	56	44	21.0	57
South Carolina	48,363	42	58	18.4	38
Georgetown County School District	640	26	74	17.2	31
Andrews High	121	16	84	16.2	25
Carvers Bay High	90	14	86	15.7	25
Georgetown High	240	19	81	16.3	25
Waccamaw High	189	46	54	19.7	51

Source: South Carolina Department of Education and ACT Inc.

15.8 GCSD: Composite Score and Equivalent Percentile Rank by School

The graph in Figure 15.23 shows the percentile of Georgetown County School District ACT composite scores for the each school who participated in the 2017 ACT testing. The percentiles were created by ACT® for determining percentiles for each of the four subjects, composite scores, and STEM scores. For example, South Carolina's composite score of 18.4 equates to the 38th percentile, nationally. This means that South Carolina's high school graduates' composite scores are 38% higher than others who took the ACT test nationally.

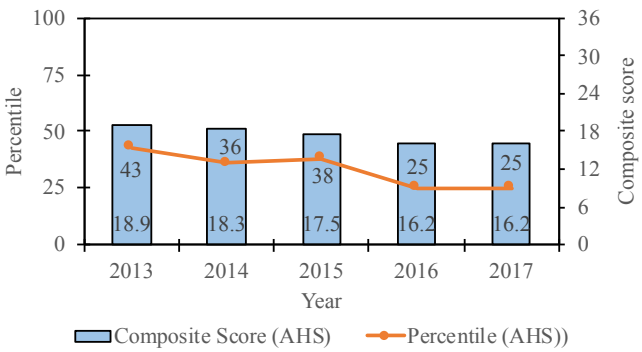
Figure 15.23: GCSD ACT tested 2017—percentile relative composite score by school



Source: South Carolina Department of Education

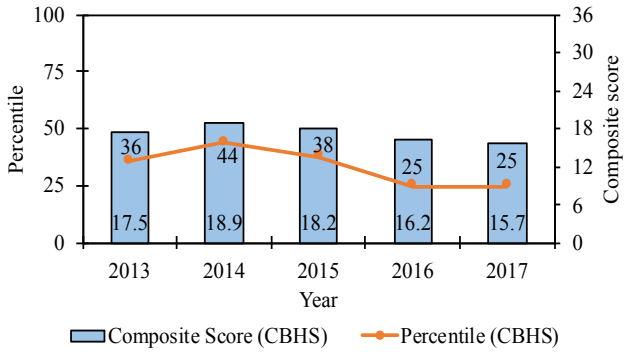
15.9 GCSD: Five-Year Trend by School Relative to Their Composite Scores and Percentiles

Figure 15.24: Andrews High School



Source: South Carolina Department of Education

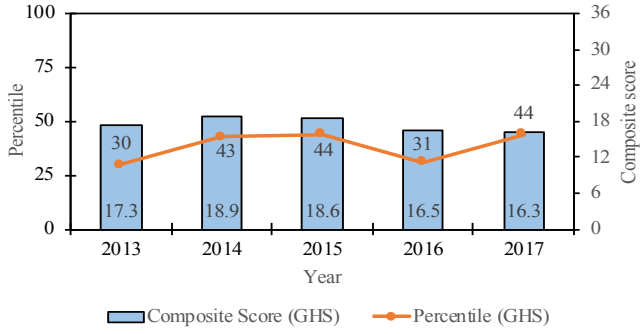
Figure 15.25: Carvers Bay High School



Source: South Carolina Department of Education

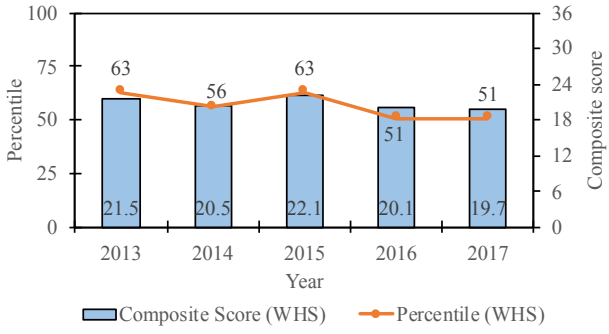
15.9 GCSD: Five-Year Trend by School Relative to Their Composite Scores and Percentiles, cont'd

Figure 15.26: Georgetown High School



Source: South Carolina Department of Education

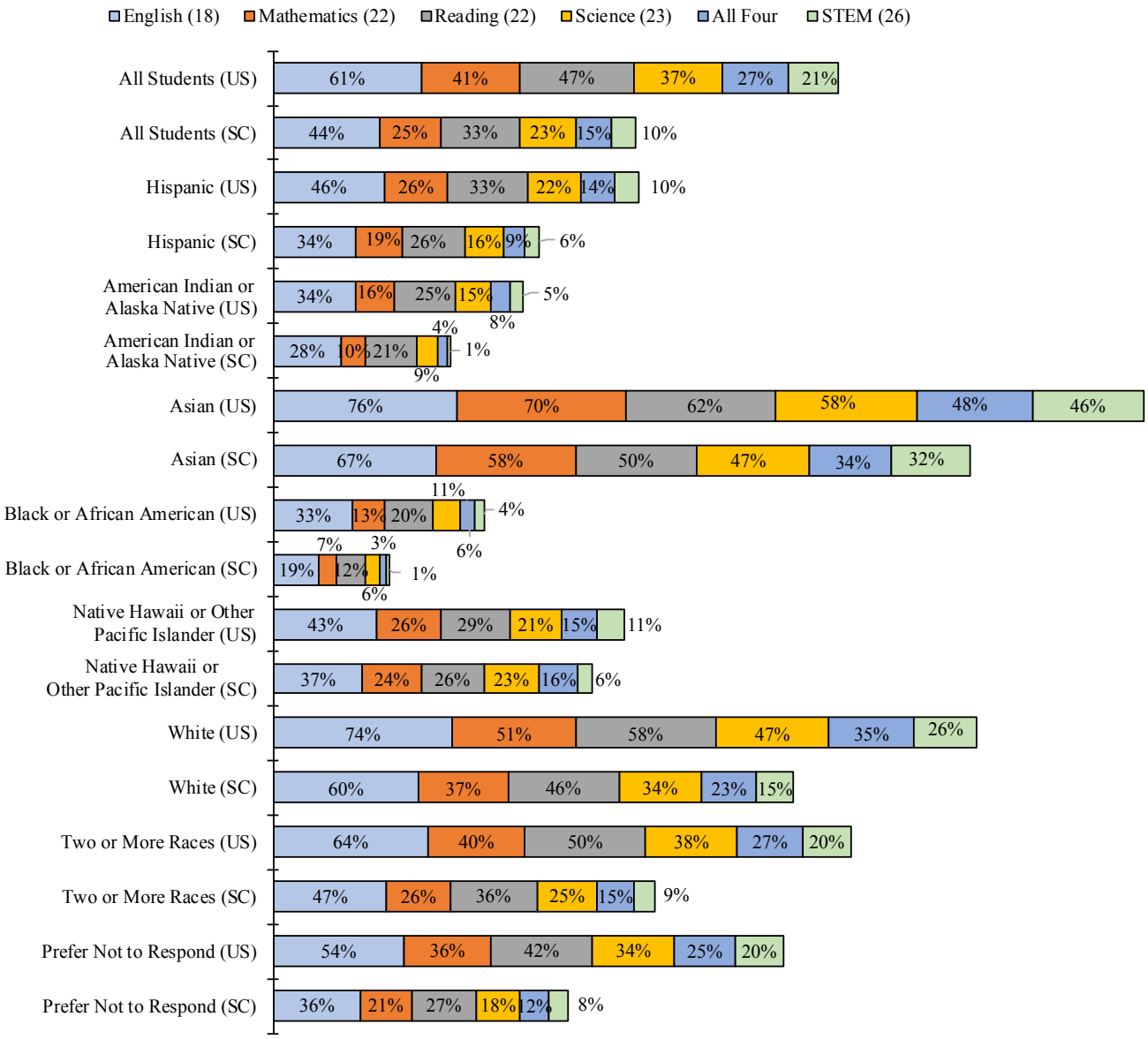
Figure 15.27: Waccamaw High School



Source: South Carolina Department of Education

15.10 Summary of ACT-Tested Graduating Seniors by Demographics: US ans SC

Figure 15.28: Percentage of graduating seniors by demographics—US and SC, 2017*



Source: South Carolina Department of Education

*The chart is not a 100% stacked bar-chart. Its purpose is to illustrate to the reader percentages on demographics of seniors' readiness.

16.1 Graduation Rates: US, SC, HCS, and GCSD

The four-year adjusted cohort graduation rate (AGCR) is the number of students who graduate in four years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class. For any given cohort, students who are entering grade 9 for the first time form a cohort that is subsequently "adjusted" by adding any students who transfer into the cohort later during the next three years and subtracting any students who transfer out, emigrate to another country, or die during that same period. This definition is provided in federal regulation 34 C.F.R. §200.19(b) (1) (i)-(iv).

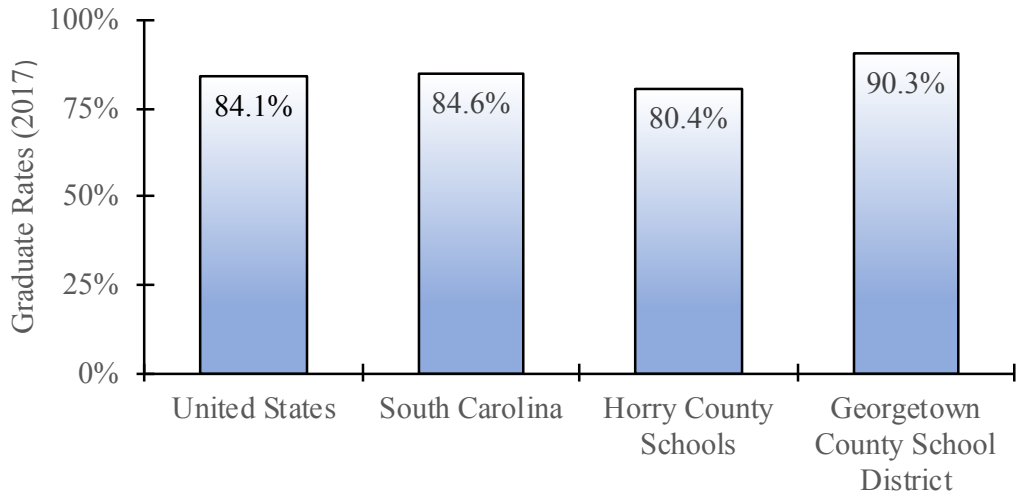
The four-year graduation rate is calculated by dividing the number of students who graduate within four years, including the summer following their fourth year of high school, with a regular high school diploma by the number of students who form the adjusted cohort for that graduating class. Students who drop out of high school remain in the adjusted cohort—that is, the denominator of the cohort used for computing the graduation rate.

For example, a ninth grade class at a high school consists of 100 students (cohort*). From the beginning of the freshman class and during the four years: Fifteen students dropped out, five students transferred in, and three students emigrated to another county. The adjusted cohort (denominator) at graduation is 102 students. If 87 cohorts (numerator) receive a regular high school diploma. The graduation rate is computed as follows:

Numerator: 87
Denominator: 100 + 5 – 3 = 102
Graduation rate: Numerator/Denominator
= (87/102)100 = 85.3%

The four-year adjusted cohort graduation rate** strictly adheres to section 1111(b) (2) (C) (vi) of the Elementary and Secondary Education Act, which defines graduation rate as the "percentage of students who graduate from secondary school with a *regular diploma* in the standard number of years."

Figure 16.1: Percentage graduation rate—US, SC, HCS, GCSD (2017)



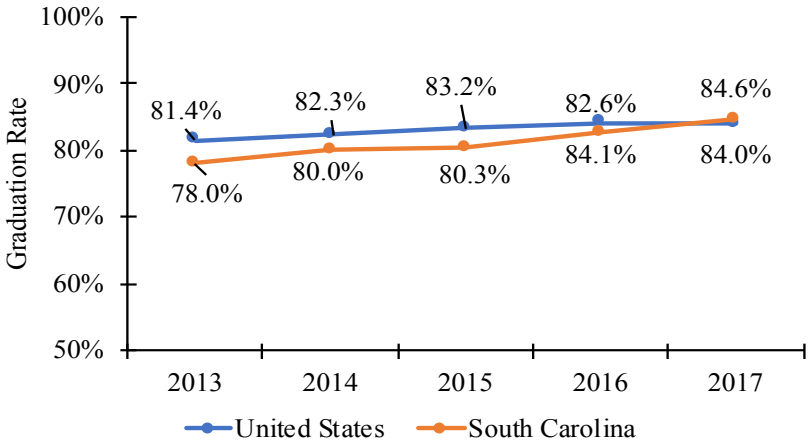
Source: South Carolina Department of Education and ACT Inc.

*Dropouts remain in the cohort
**US Department of Education, National Center for education Statistics
https://www2.ed.gov/policy/elsec/leg/esea02/pg2.html#sec1111

16.2 Percentage Graduation Rate Five-Year Trend: US, SC, HCS, and GCSD

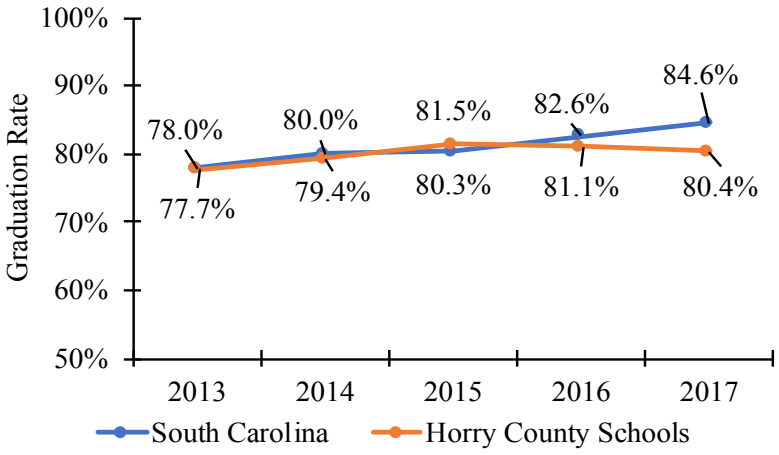
The United States graduation rate increased (Figure 16.2) 3.9% from 2013 through 2017. South Carolina's graduation rate shows improvement from 2013 through 2017 (7.4%). Both the US and SC have made steady but slow increases in their graduation rates. South Carolina has consistently been lower than the national rate.

Figure 16.2: Percentage graduation rate—US and SC



Source: South Carolina Department of Education

Figure 16.3: Percentage graduation rate—SC and HCS

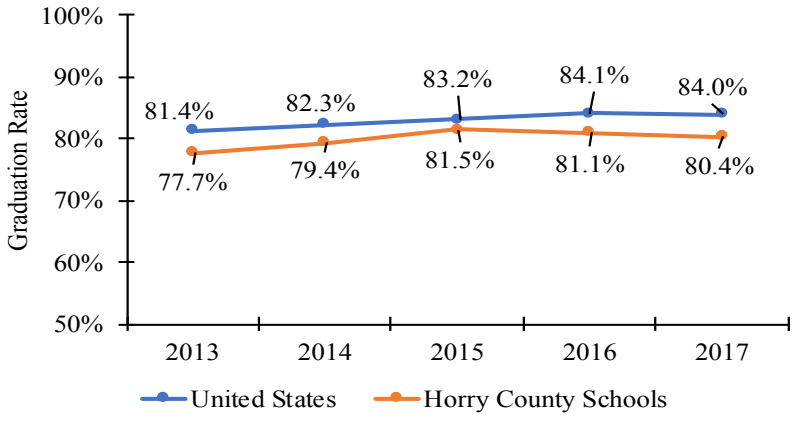


Source: South Carolina Department of Education

Horry County Schools and South Carolina (Figure 16.3) have remained relative close in their graduation rates from 2013 through 2017. South Carolina's graduation rate showed an increase (7.4%) from 2013 through 2017. Horry County Schools increased (3.4%) over the same period. However, in 2017, Horry County Schools graduation rate was 5.1% lower than South Carolina's. Otherwise, the difference in rates between state and district from 2013 through 2017 is statistically insignificant.

Horry County Schools and the United States (Figure 16.4) have remained relatively close in their graduation rates from 2013 through 2017. HCS graduation rate showed an increase (3.4%) from 2013 through 2017. The United States has shown an increase (3.1%) over the same five years. Although both showed a modest increase, the difference between their graduation rates is statistically significant in favor of the US. This means that the US rates are higher than HCS.

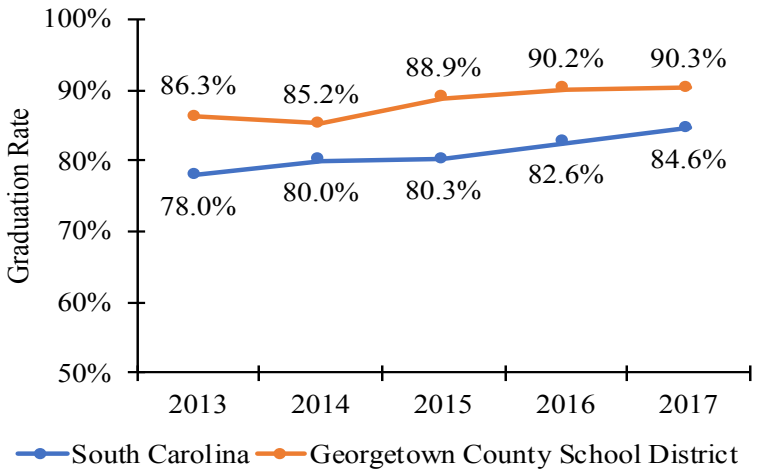
Figure 16.4: Percentage graduation rate—US and HCS



Source: South Carolina Department of Education
National Center for Education Statistics

16.2 Percentage Graduation Rate Five-Year Trend: US, SC, HCS, and GCSD, cont'd

Figure 16.5: Percentage graduation rate—SC and GCSD

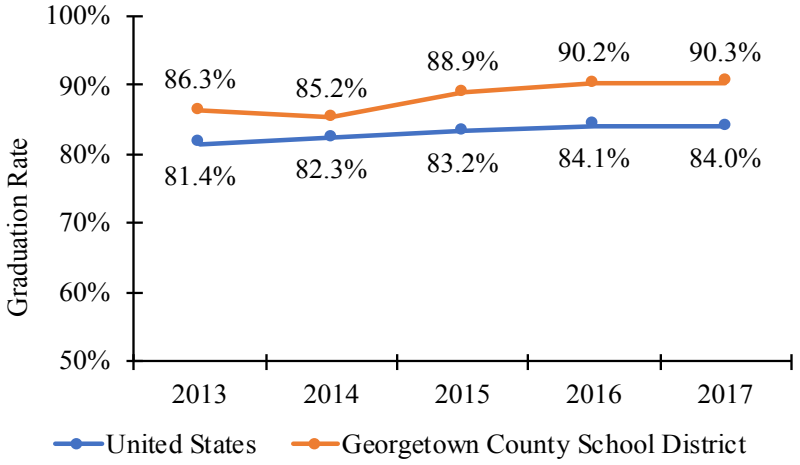


Source: South Carolina Department of Education
National Center for Education Statistics

The Georgetown County School District (GCSD) and South Carolina (Figure 16.5) have maintained a consistent and wide gap in graduation rates over the past five years in favor of GCSD. The Georgetown County School District graduation rate increased (4.5%) from 2013 through 2017. The GCSD graduation rate in 2017 was (6.5%) higher than that of South Carolina. The difference in their graduation rates over the past five years is statistically significant. This means that GCSD's graduation rate is higher than SC's.

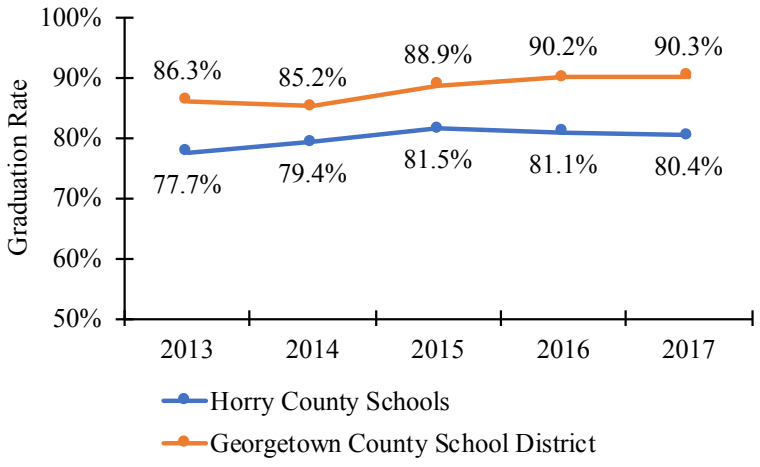
The Georgetown County School District (GCSD) and the United States (Figure 16.6) have maintained a consistent and wide gap in graduation rates from 2013 through 2017 in favor of GCSD. In 2017, the Georgetown County School District outperformed the national graduation rate (7.2%). The difference in their graduation rates over the past five years is statistically significant. This means that GCSD's graduation rate is higher than the national rate.

Figure 16.6: Percentage graduation rate—US and GCSD



Source: South Carolina Department of Education
National Center for Education Statistics

Figure 16.7: Percentage graduation rate—HCS and GCSD

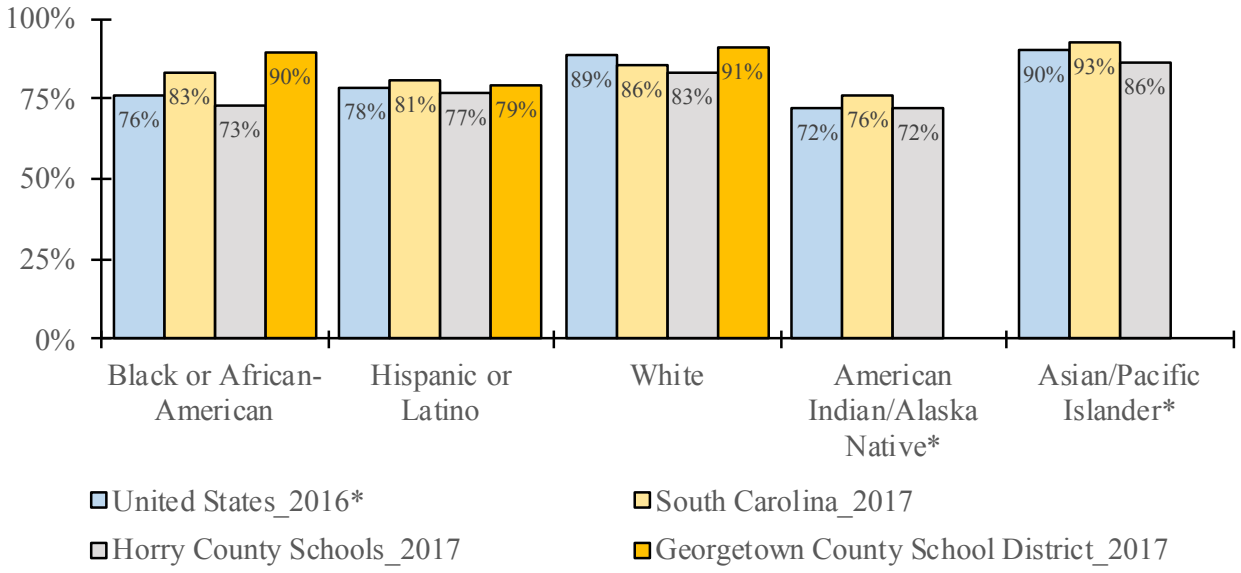


Source: South Carolina Department of Education
National Center for Education Statistics

The graph profiles Horry County Schools and Georgetown County School District graduation rates over the past five years (Figure 16.7). As shown in previous graphs in this section, the GCSD graduation rate was higher than the US, SC, and HCS rates consistently over the past five years. The GCSD graduation rate was higher (11.6%) than that of HCS in 2017. The difference is statistically significant. The average GCSD graduation rates from 2013 through 2017 has been higher than HCS by 9.7%.

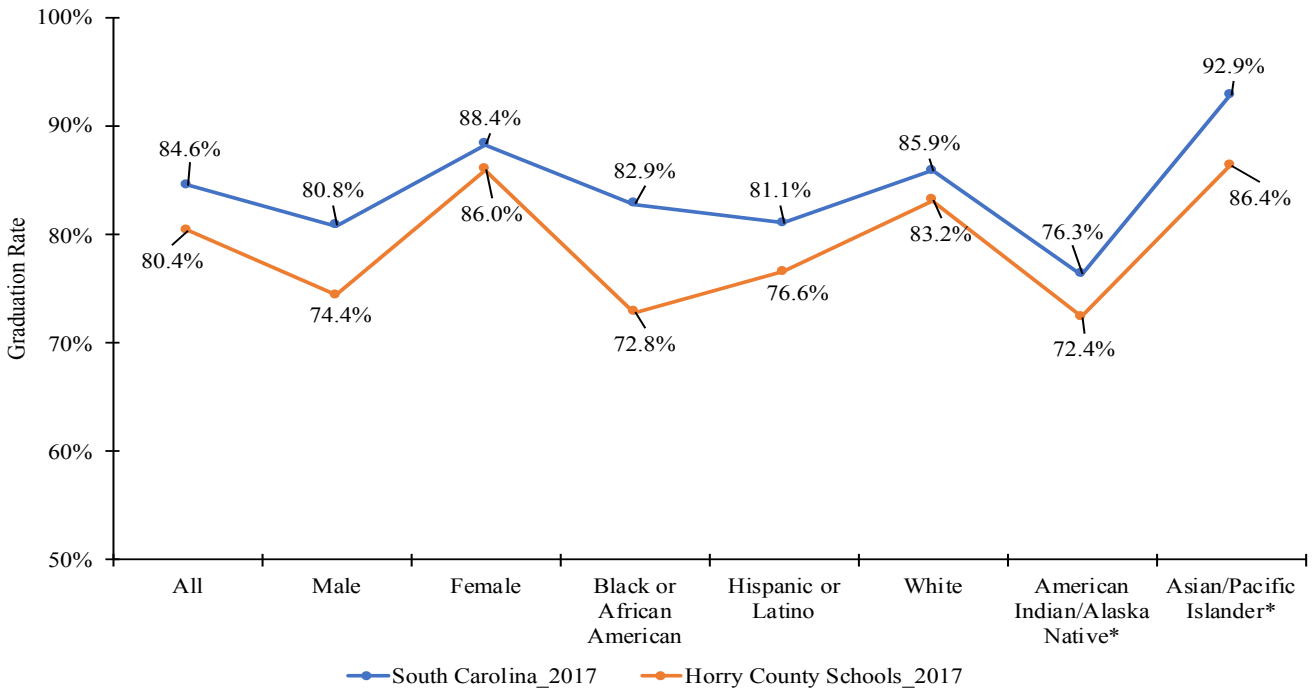
16.3 Percentage Graduation Rates by Student Demographics: US, SC, HCS, and GCSD

Figure 16.8: Percentage graduation rate by student demographics†



Figures 16.9 through 16.14 profile student demographics of graduating seniors in 2017. In order to accentuate the differences in percentage, the y-axis starts at 50% instead of 0%. Figure 16.9 profiles the comparison between the US and SC. For the US, the most accurate percentages graduation rates by student demographics were from the National Center for Education Statistics from 2016.

Figure 16.9: Percentage graduation rate—student demographics—US and SC†



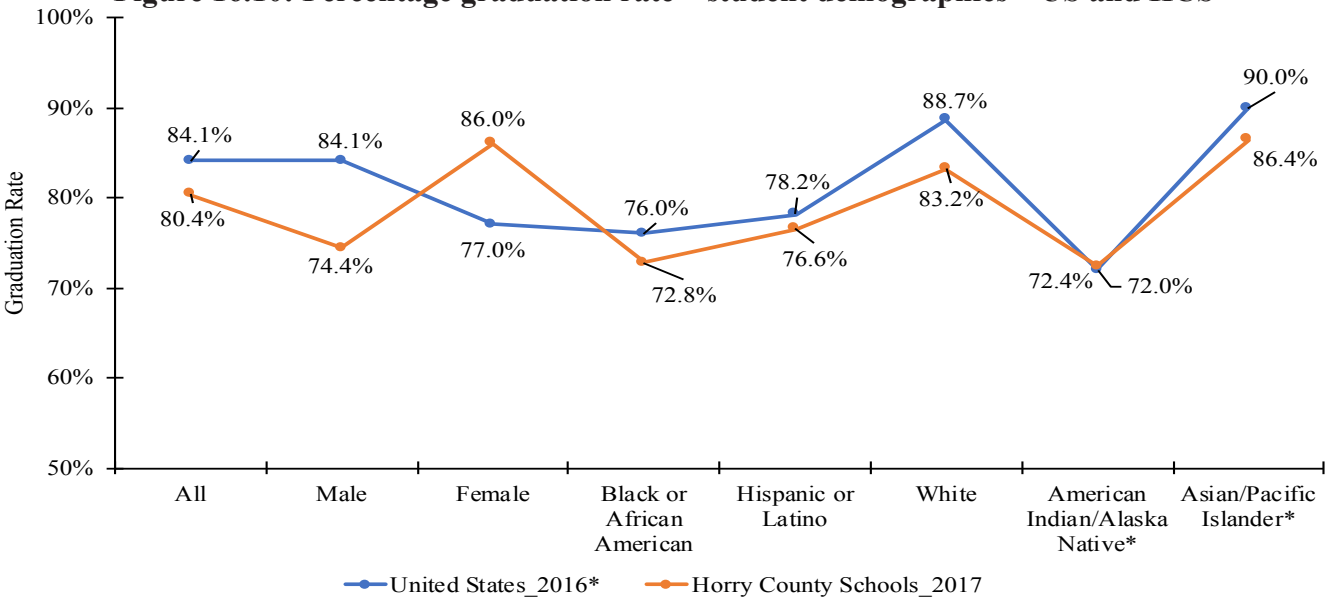
†Source: South Carolina Department of Education
National Center for Education Statistics, 2016

*Latest available data by demographics: National Center for Education Statistics, 2016

16.3 Percentage Graduation Rates by Student Demographics—US, SC, HCS, and GCSD, cont'd

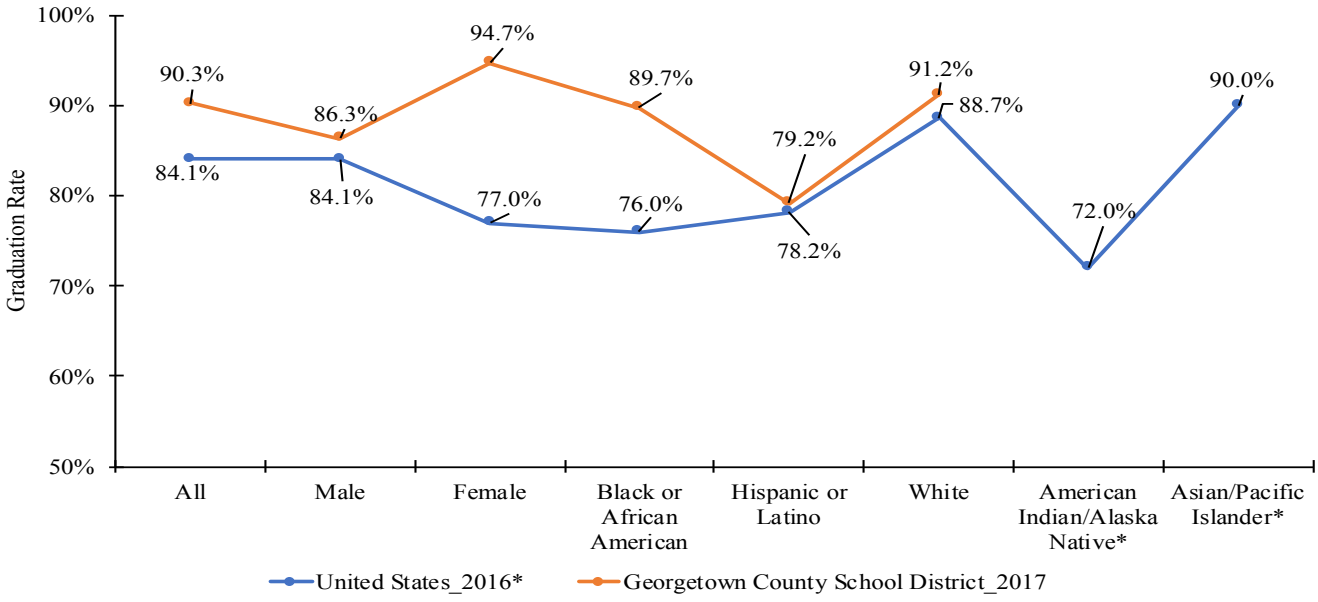
Figure 16.10 profiles graduating student demographics with a comparison between the United States and Horry County Schools. Overall, the US outperformed HCS graduation rate by 5%; however, HCS women students' graduation rate was 11% higher than that of the US. In Figure 16.11, the GCSD graduation rate was 7% higher than that of the US, and GCSD's women's graduation rate was 21% higher than that of the US.

Figure 16.10: Percentage graduation rate—student demographics—US and HCS



Source: South Carolina Department of Education
National Center for Education Statistics, 2016

Figure 16.11: Percentage graduation rate—student demographics—US and GCSD



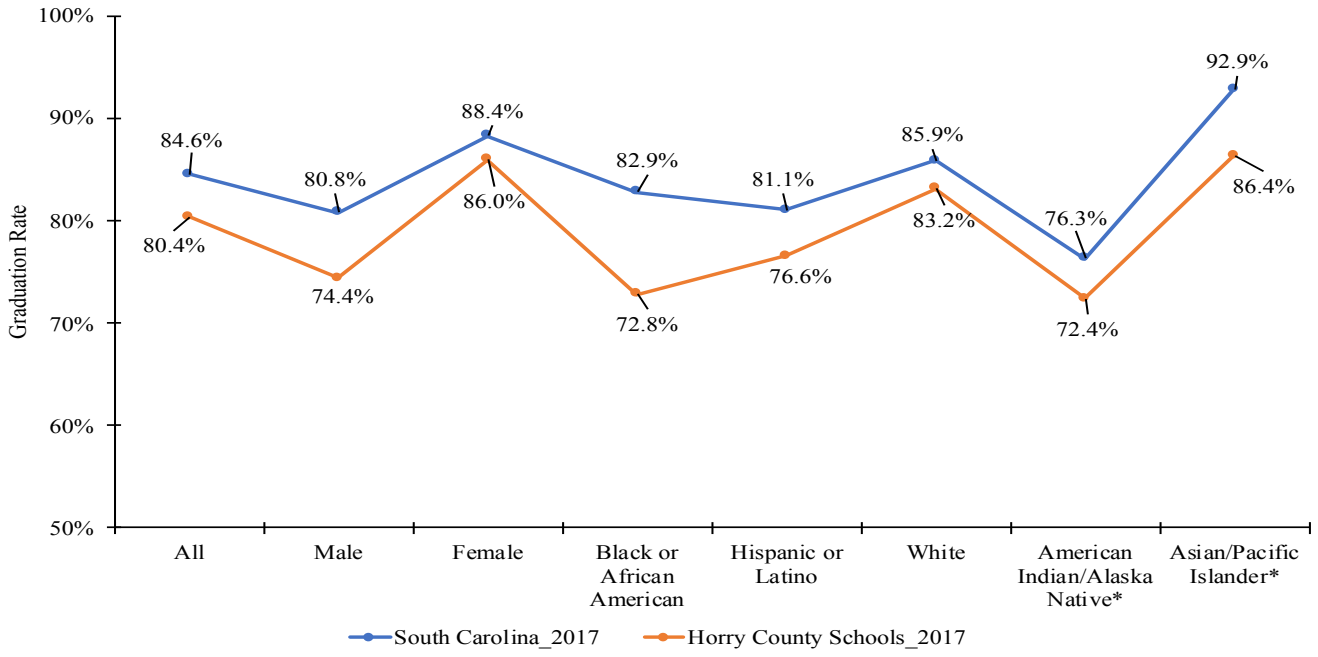
Source: South Carolina Department of Education
National Center for Education Statistics, 2016

*Latest available data by demographics: National Center for Education Statistics, 2016

16.3 Percentage Graduation Rates by Student Demographics—US, SC, HCS, and GCSD, cont'd

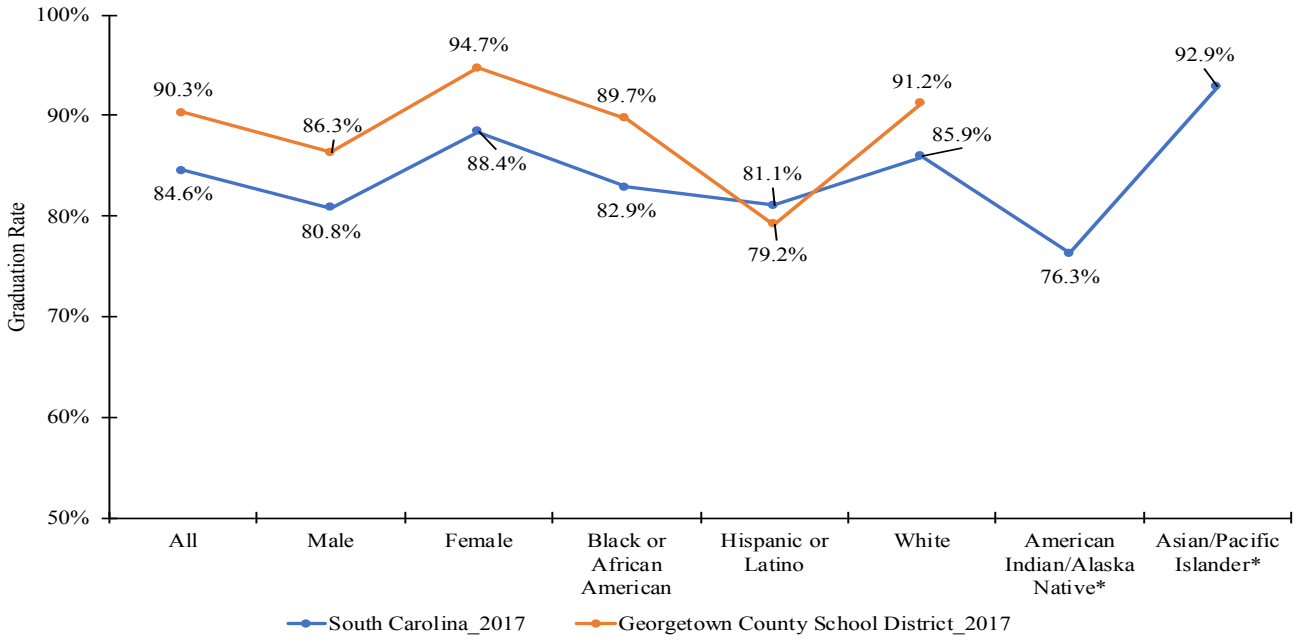
The graph (Figure 16.12) profiles student demographics by comparing graduation rates of SC and HCS. The percentage of all SC groups listed in the graph have a higher graduation rate than HCS. The difference between SC and HCS is statistically significant. Although the GCSD graduation rate decreased below that of SC (Figure 16.13), the overall difference between state and district is statistically significant in favor of GCSD.

Figure 16.12: Percentage graduation rate—student demographics—SC and HCS



Source: South Carolina Department of Education

Figure 16.13: Percentage graduation rate—student demographics—SC and GCSD



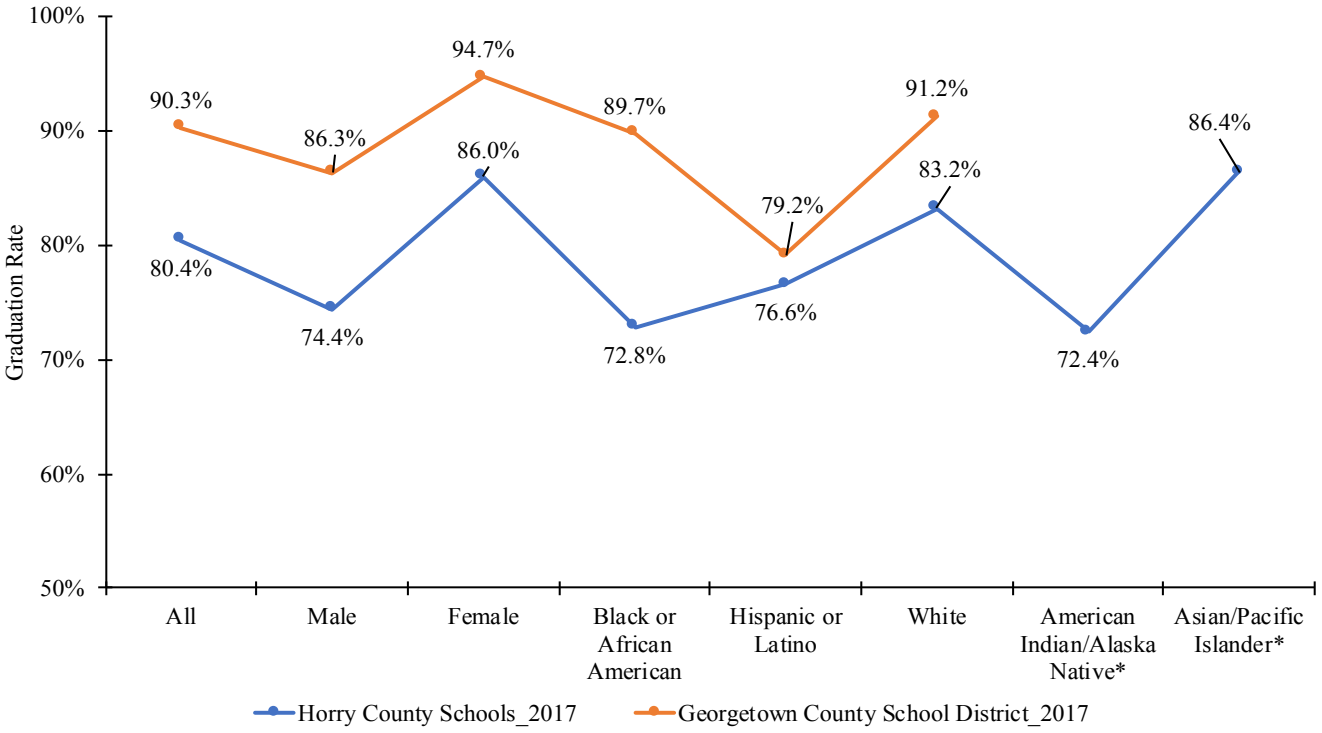
Source: South Carolina Department of Education

*No percentages were available for GCSD

16.3 Percentage Graduation Rates by Student Demographics—US, SC, HCS, and GCSD, cont'd

The graph (Figures 16.14) profiles student demographics by comparing the graduation rates of Horry County Schools and the Georgetown County School District. As previously shown in this section, the Georgetown County School District graduation rate is (12%) higher than Horry County Schools, and this difference is statistically significant. Also, the district graduation rate is only percentage points below the highest state rate in the nation, which is about 95%.

Figure 16.14: Percentage graduation rate—student demographics—HCS and GCSD



Source: South Carolina Department of Education

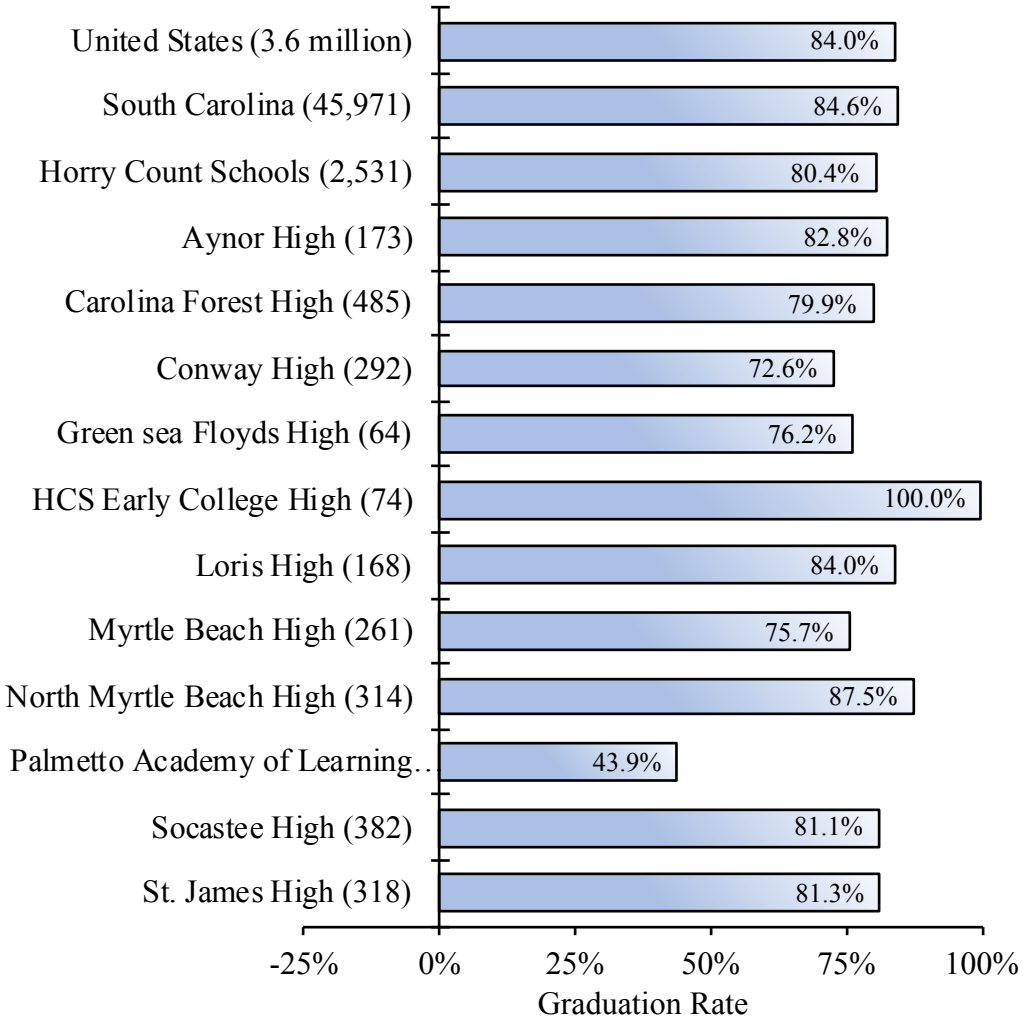
Comment: The passage below is a direct quote from the National Center for Education Statistics: The Condition of Education, Public High School Graduation Rates (Update from 2017). The information paints a pattern that is consistent at the state and district levels that is profiled in this paper.

"In school year 2014–15, the adjusted cohort graduation rate (ACGR) for public high school students rose to 83 percent, the highest rate since the measure was first collected in 2010–11. In other words, more than 4 out of 5 students graduated with a regular high school diploma within 4 years of starting 9th grade. Asian/Pacific Islander students had the highest ACGR (90 percent), followed by White (88 percent), Hispanic (78 percent), Black (75 percent), and American Indian/Alaska Native (72 percent) students." National Center for Education Statistics

16.4 HCS: Percentage Graduation Rates by School

The graph (Figure 16.15) profiles student graduation rates by school. The overall graduation rate (80.4%) equates to about four out of five students who start ninth grade graduating in four years with a regular high school diploma. The adjusted cohort graduation rate is the percentage of public high school freshmen who graduate with a regular diploma within four years of starting ninth grade. ECS Early College High earned the distinction of a 100% graduation rate in 2017.

Figure 16.15: Percentage graduation rate for each school—HCS—2017



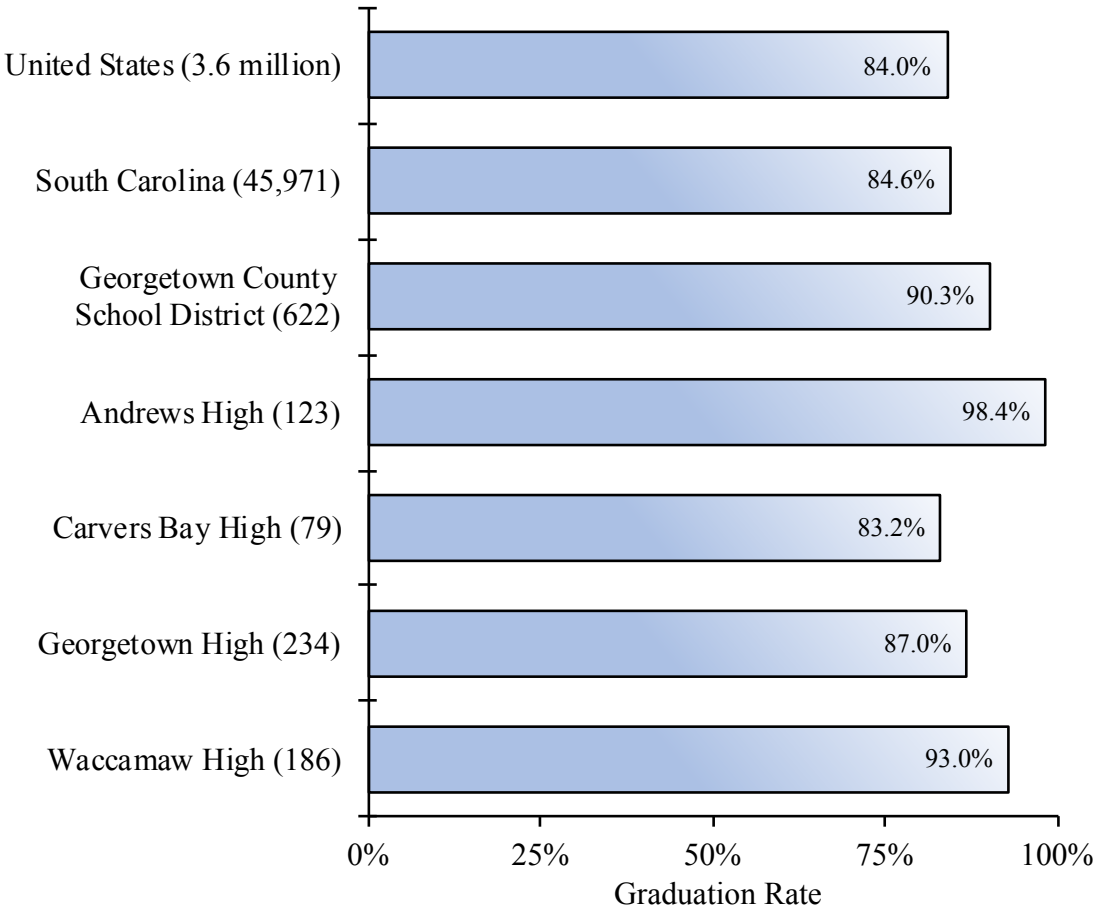
Source: South Carolina Department of Education

16.5 GCSD: Percentage Graduation Rates by School

The graph (Figure 16.16) profiles student graduation rate by school. The overall graduation rate (90.3%) equates to about nine out of ten students who start ninth grade, graduating in four years with a regular high school diploma.

The adjusted cohort graduation rate is the percentage of public high school freshmen who graduate with a regular diploma within four years of starting ninth grade. Each district's schools has a graduate rate greater than 80%.

Figure 16.16: Percentage graduation rate by school—GCSD—2017



Source: South Carolina Department of Education

Summary

This paper profiled teachers and students in the Horry and Georgetown Counties public schools. To that end, the paper included a preponderance of student metrics, primarily in the form of graphs and narrative to complement some of the graphical analyses. The intended audience includes students, parents, educators, community leaders, and other stakeholders in educating public school students.

The demographics of classroom teachers in Horry County Schools are consistent with the percentage distribution of teachers' demographics earning bachelor's degrees in education annually. However, the percentage of Black classroom teachers in South Carolina and the Georgetown County School District are in the double digits, which is much larger than the percentage of Blacks earning bachelor's degrees in education. In order for Black classroom teachers to reach parity with Black students in Horry County Schools, an additional infusion of about 416 Black teachers would be needed. For the Georgetown County School District, an additional infusion of about 183 Black teachers would be needed to reach parity with its Black students. To achieve parity, this means that each of the two school districts would need a total of about 607 and 286 Black classroom teachers, respectively.

The uneven distribution of students along racial/ethnic lines enrolled in individual schools in the Horry and Georgetown counties have more to do with the proportionality of the racial/ethnic composition of the attendance area where the school is located. There is no statistical evidence to suggest any nefarious maneuvering that caused this disproportional situation.

The SCPASS and SC READY (2017) average benchmark performance for elementary and middle school students of core courses such as science, mathematics, and English language arts was 43% for South Carolina, 51% for the Horry County Schools, and 38% for the Georgetown County School District. See Sections 5 through 10 in this paper.

The EOCEP (2017) percentage performance for those earning a "C" or higher in this paper were Algebra 1, Biology 1, English 1, and US History and the Constitution. The EOCEP for algebra decreased for South Carolina, Horry County Schools, and the Georgetown County School District by 30%, 32%, and 48%, respectively. See Figure 11.1. The average decrease for the other three courses (Biology 1, English 1, US History and the Constitution) was about 8%, 7%, and 9%, respectively (Figures 11.2, 11.3, and 11.4).

The ACT composite score in 2017 for graduating seniors were 21.0 for the US, 18.4 for SC, 19.0 for HCS, and 17.2 for GCSD. South Carolina used empirical data to establish an ACT composite score of 20 to determine college readiness by percentages. The percentage for overall college readiness was calculated by dividing the number of ACT composite scores of 20 or higher by the number of test takers and multiplying by 100. South Carolina started requiring eleventh graders to take the ACT as part of its accountability requirement in 2015. The percentages of eleventh graders college ready (2017) were 33% for SC, 34% for HCS, 25% for GCSD). The percentage of graduating seniors college ready (2017) were 56% for the US, 36% for SC, 42% for HCS, and 26% for GCSD. See Sections 14 and 15 of this paper.

The lower scores on the ACT tests by Black and Hispanic students is also consistent with the fact that these two groups are concentrated heavily in less rigorous courses in high school and are not participating in significant numbers in such

*Honors or higher: American literature, creative writing, Algebra 1-3, geometry, statistics. natural or physical science: biology, chemistry, physics. American history, civics, government, comparative religion, Spanish 1-4, and so on.

Summary, cont'd

courses as AP, IB, Honors, and so on. ACT Inc. testing organization officials have scientifically proven that there is a direct correlation between the percentage of students who met benchmark among those who took core* or more courses compared to those taking less than core courses by an average of 20%. For example, mathematics test takers in 2017 who completed core or more courses versus those completing less than core courses met benchmark by 48% and 26%, respectively. This equates to about two out of four meeting benchmarks for students who took core or more courses versus about one out of four meeting benchmarks who took less than core courses.

A lack of Black and Hispanic students enrolling in honors classes in middle school limits their ascension into the more rigorous courses in high school and their assessment performance. After enrolling in less rigorous courses in middle school, it becomes very difficult for students to later move into the more rigorous courses after they are already in high school. For example, in 2017, about 1,439 of Horry County middle school students took high school Algebra 1, and 442 took English 1 while still in middle school. When these students enter high school, they can start high school in geometry, Algebra II, or English II with time to complete more honors and college classes before graduation from high school. The Georgetown County middle schools experienced a similar situation with 231 middle school students completing Algebra 1 and 195 middle school students completing English 1. See "Improving Student Performance: Horry County Parents and the Church Community" by David C. Wilson 2017.

This paper did not draw any definitive conclusions regarding causation; rather, the idea was to do deeper analyses in terms of measurements and make these analyses available so that the reader can examine the various assessments and benchmarks for the SCPASS, SCREADY, EOCEP, ACT results (eleventh) graders, and ACT results (seniors), and come to his or her own conclusion. In addition, it is the hope that readers of this paper will have a clearer perspective on the challenges that school boards and educators face at the national, state, and district levels in educating our children in preparation for a competitive world.

It is hoped that school boards and administrators will be mindful of the fact that technology is only a productivity tool in educating children, and it is not a substitute for human cognition and maturity. All of the efforts to put more technology in front of children to improve their learning do not comport with the results in this paper. It seems that improvement in productivity is being conflated with improvement in learning.

In closing, let me mention one common denominator that often comes up in success stories from former students who have done well as adults—most will attribute their success in life to a parent who made sure that they received the best education accessible to them during their school years. This would suggest that students, parents, and community leaders can be instrumental in any improvement students themselves make. Teachers, administrators, and counselors are a part of the solution, but they need help and support from parents. ■

This table was created by ACT.org

National Distributions of Cumulative Percents for ACT Test Scores
ACT-Tested High School Graduates from 2015, 2016 and 2017

Score	ENGLISH	MATHEMATICS	READING	SCIENCE	COMPOSITE	STEM	Score
36	100	100	100	100	100	100	36
35	99	99	99	99	99	99	35
34	98	99	98	99	99	99	34
33	96	98	96	98	98	98	33
32	94	97	94	96	97	97	32
31	93	96	91	95	96	96	31
30	91	95	88	94	94	95	30
29	89	93	86	93	92	93	29
28	87	91	83	91	89	91	28
27	85	88	80	89	86	88	27
26	82	83	77	86	82	84	26
25	79	78	74	82	78	80	25
24	74	74	71	77	74	74	24
23	69	68	66	70	69	69	23
22	64	63	60	63	63	63	22
21	59	59	54	56	57	57	21
20	52	55	48	49	51	51	20
19	47	51	42	41	44	44	19
18	42	45	37	34	38	37	18
17	38	38	31	28	31	29	17
16	34	29	26	22	25	21	16
15	28	17	21	17	19	14	15
14	22	8	16	12	13	9	14
13	17	3	12	9	8	4	13
12	13	1	7	6	4	2	12
11	10	1	4	3	1	1	11
10	7	1	2	2	1	1	10
9	4	1	1	1	1	1	9
8	2	1	1	1	1	1	8
7	1	1	1	1	1	1	7
6	1	1	1	1	1	1	6
5	1	1	1	1	1	1	5
4	1	1	1	1	1	1	4
3	1	1	1	1	1	1	3
2	1	1	1	1	1	1	2
1	1	1	1	1	1	1	1
Mean	20.3	20.7	21.4	20.9	20.9	21.0	
S.D.	6.8	5.4	6.5	5.5	5.6	5.2	

Note: These national norms are the source of U.S. Ranks, for multiple-choice tests, displayed on ACT reports during the 2017-2018 testing year.

These norms with a sample size of 6,044,816, are based on 2015, 2016 and 2017 graduates.

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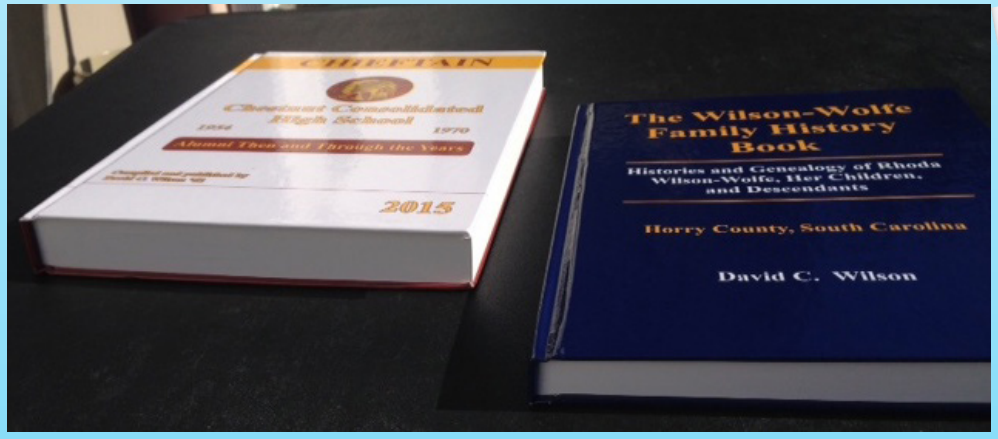

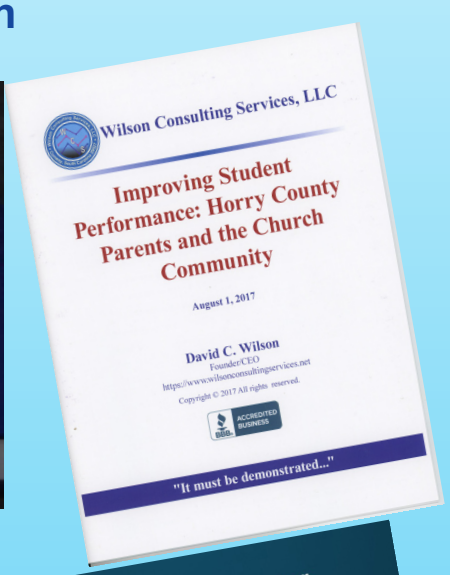

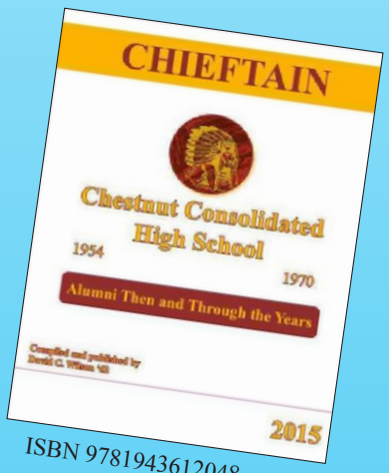

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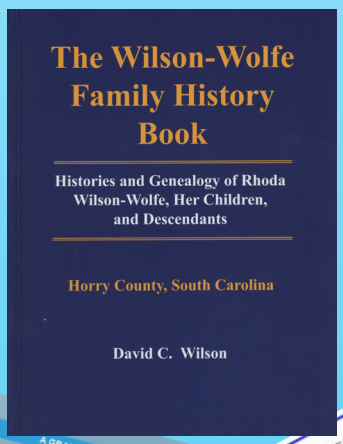
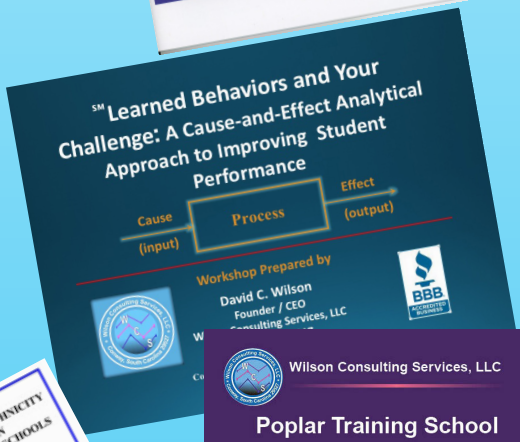
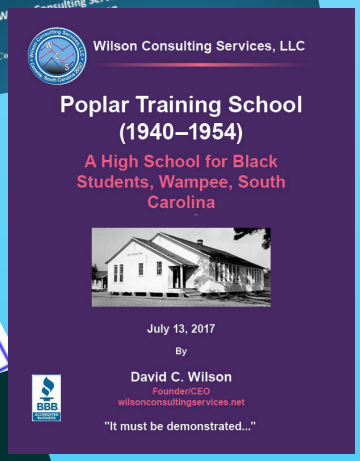
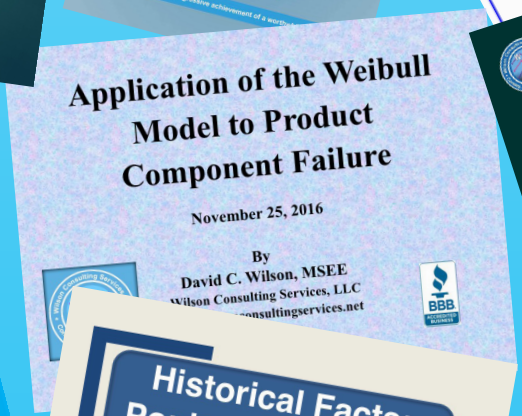
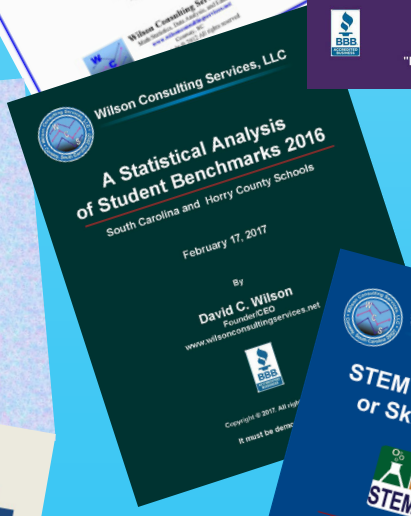
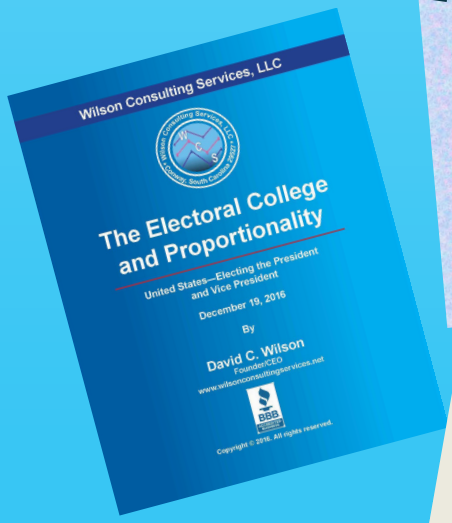


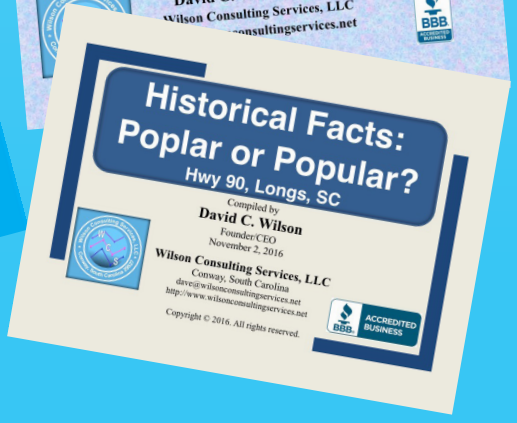




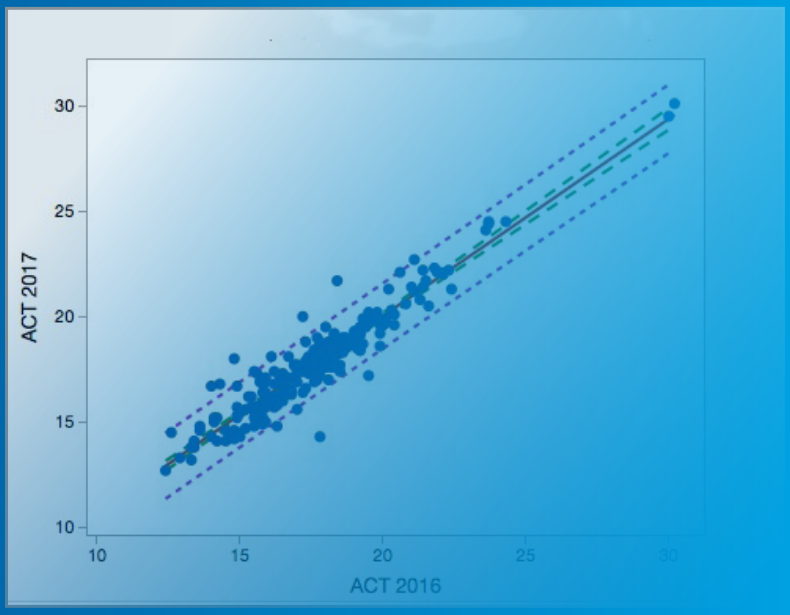








It must be demonstrated...



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