



Third Grade English and Math Performance on the PSSA, 2018-19

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This data brief uses third-grade student scores on the PSSA (Pennsylvania System of School Assessment) from spring 2019 to provide descriptive information about third grade English and Math performance. This information complements the School District of Philadelphia's Open Data District Level resources.¹

The PSSA is a standards-based, criterion-referenced test administered to all Pennsylvania students in grades 3-8. Students receive a scaled score for each assessment based on the questions they answer correctly. Using cut-points that can vary across grade and subject, the scaled score corresponds to one of four performance tiers: Advanced, Proficient, Basic, and Below Basic.²

Methods

The Office of Research and Evaluation (ORE) analyzed third-grade student performance on the PSSA and PASA (Pennsylvania Alternate System of Assessment) by race/ethnicity, gender, English Learner (EL) status, and special education status.³ We then calculated the percentage of students scoring proficient or advanced, basic, and below basic for each subgroup (Figures 1-8).

The data set used for analyses included all 2018-19 third-grade District students who received a final PSSA score in English Language Arts (ELA) and/or Math. This included 10,314 students with PSSA-ELA scores and 10,390 students with PSSA-Math scores in 147 schools.⁴ Students were included if they were enrolled in a District school continuously since October 1, 2018; students enrolled in alternative education programs and cyber charter schools on October 1, 2018 were not included in the following analyses.

¹ <https://www.philasd.org/performance/programsservices/open-data/pssakeystone/>

² See <https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/PSSA/Pages/DescriptorsCutScores.aspx> for links to more information about cut scores and a description of performance levels at each grade level.

³ PASA is a statewide alternative assessment intended for students with significant cognitive disabilities or who cannot participate meaningfully on the PSSA. For more information see <https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/PASA/Pages/default.aspx>.

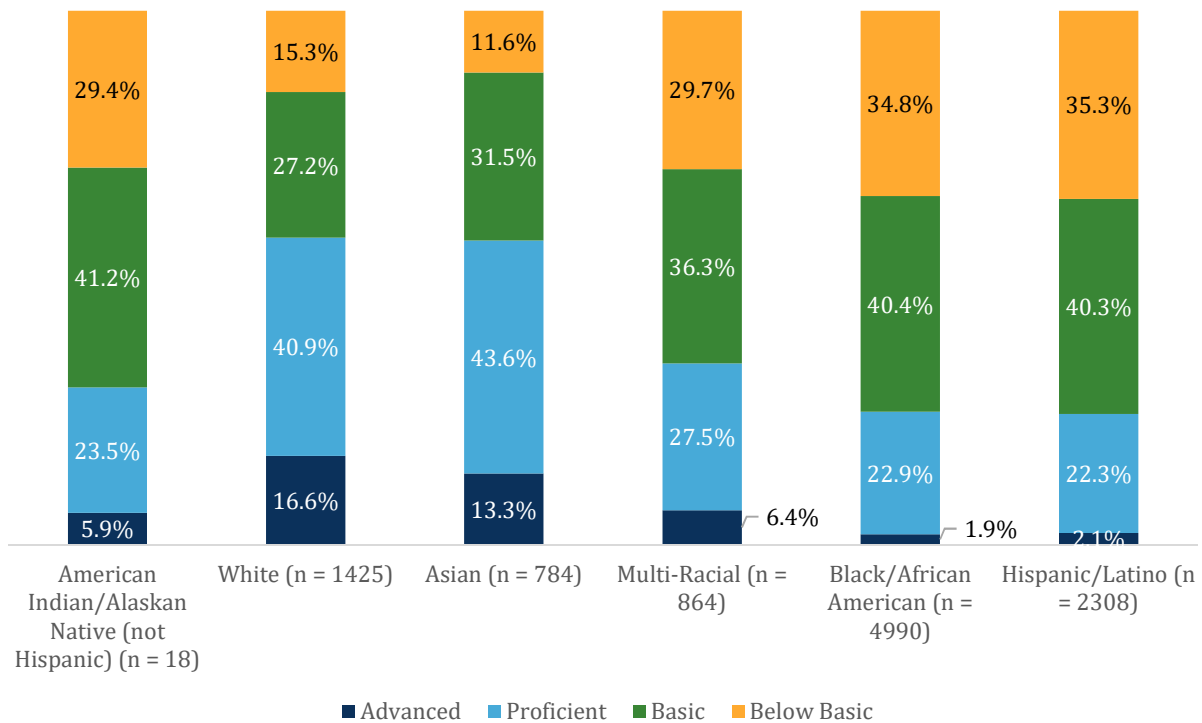
⁴ The Accountability Performance files are calculated using the student performance levels used for accountability reporting purposes, which are revised to meet state-mandated caps for PASA.

Third Grade PSSA-ELA Performance

In spring 2019, 3,353 third-grade students scored proficient or advanced on the English Language Arts (ELA) PSSA; this corresponds to 32.5% of the students who took the test. However, there are some differences across racial/ethnic subgroups (Figure 1). Overall, White and Asian students had the highest percentage of students scoring proficient or advanced (57.5% and 56.9%, respectively), and Multi-Racial, Black/African American, and Hispanic/Latino students had the lowest percentages of students scoring proficient or advanced (33.9%, 24.8%, and 24.4%, respectively).

Similar performance patterns can be observed in the percentages of third-grade students who scored below basic on the PSSA-ELA. Asian students had the lowest percentage of students scoring below basic (11.6%), whereas Black/African American and Hispanic/Latino students had the highest percentage of students scoring below basic (34.8% and 35.3% respectively).

Figure 1. PSSA-ELA scores of 2018-19 third-grade students by race/ethnicity



Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-ELA in each subgroup. PASA scores are included for students who took PASA instead of PSSA.

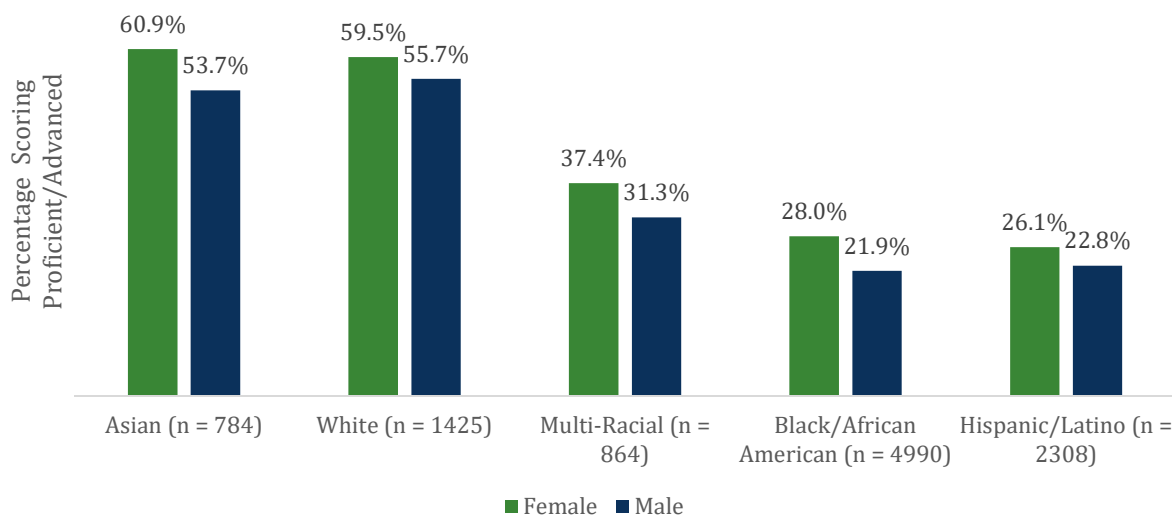
How to read this figure: Each bar represents a racial/ethnic student group and the number of students in that group with a score on the spring 2019 PSSA-ELA test. For example, 4,990 Black/African American students took the PSSA-ELA. Of those, 24.8% scored at the proficient or advanced levels, 40.4% scored at the basic level, and 34.8% scored at the below basic level.

When further comparing differences by gender, third-grade female students consistently outperformed male students across all racial/ethnic categories on the PSSA-ELA (Figure 2). Asian female students had the highest percentage of students scoring proficient or advanced (60.9%), followed closely by White female students (59.5%). Black/African American and Hispanic/Latino students had the lowest percentage of female students scoring proficient or advanced (28.0% and 26.1%, respectively).

Among third-grade male students, White students had the highest percentage of students scoring proficient or advanced (55.7%), surpassing the percentage of Asian male students by 2 percentage points. Black/African American and Hispanic/Latino male students scored similarly and had the lowest percentage of students scoring proficient or advanced (21.9% and 22.8%, respectively).

The degree of variability in test scores between female and male students also varied within race/ethnicity subgroups. Asian female students outperformed Asian male students by 7.2 percentage points, the largest difference of any group. In contrast, the difference between female White students and male White students was only 3.8 percentage points.

Figure 2. Percentage of 2018-19 third-grade students scoring proficient or advanced on the PSSA-ELA, by race/ethnicity and gender



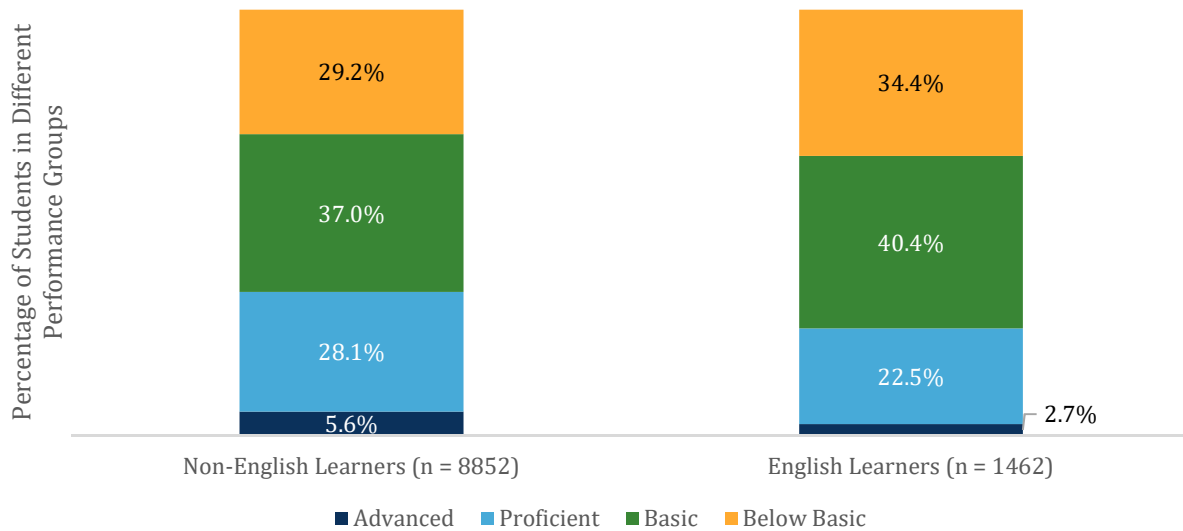
Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-ELA in each subgroup. PASA scores included for students who took PASA instead of PSSA.

How to read this figure: Each pair of bars represents all students in each racial/ethnic category who took the PSSA-ELA in spring 2019. The green bar represents the percent of female students that scored in the proficient or advanced categories in that racial/ethnic group, and the blue bar represents the percent of male students that scored proficient or advanced in that racial/ethnic group.

Similarly, there were differences in PSSA-ELA scores between English Learners (EL) and non-EL students. About a quarter (25.2%) of EL students scored proficient or advanced on the PSSA-ELA compared to about a third (33.7%) of non-EL students (Figure 3). Similar performance patterns were present in the percentages of third-grade EL students who scored below basic on the PSSA-ELA. Among EL students, 34.4% scored below basic compared to 29.2% of non-EL students.

Figure 3. PSSA-ELA scores of 2018-19 third-grade students by English Learner (EL) status

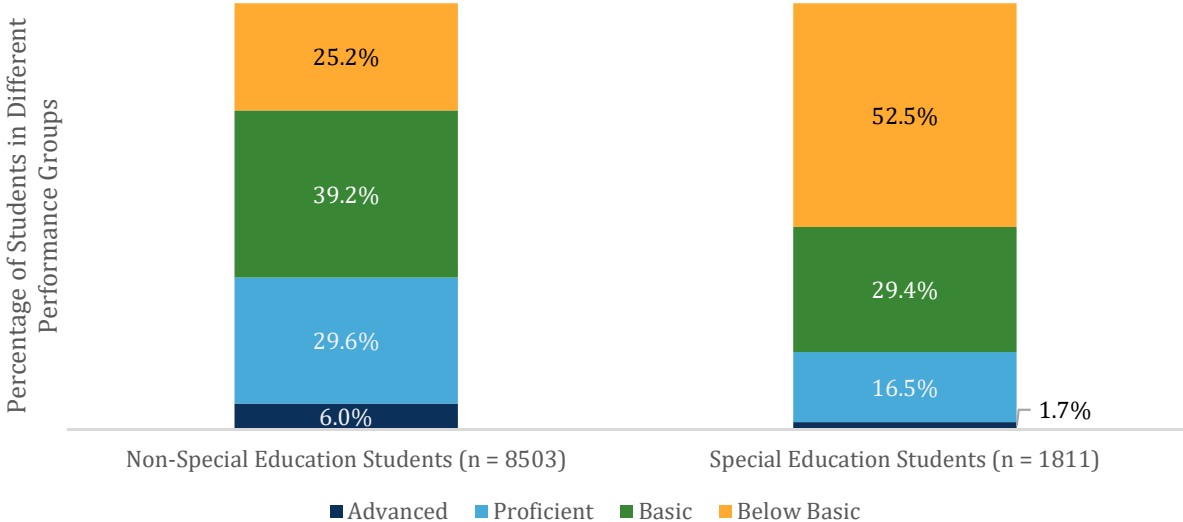


Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-ELA in each subgroup. PASA scores included for students who took PASA instead of PSSA.

Finally, students receiving special education services scored in the proficient or advanced categories on the PSSA-ELA less often than students who were not receiving special education services (18.1% compared to 35.6%; Figure 4). The percentage of special education students scoring below basic was nearly double that of non-special education students (52.5% compared to 25.2%).

Figure 4. PSSA-ELA scores of 2018-19 third-grade students by Special Education status



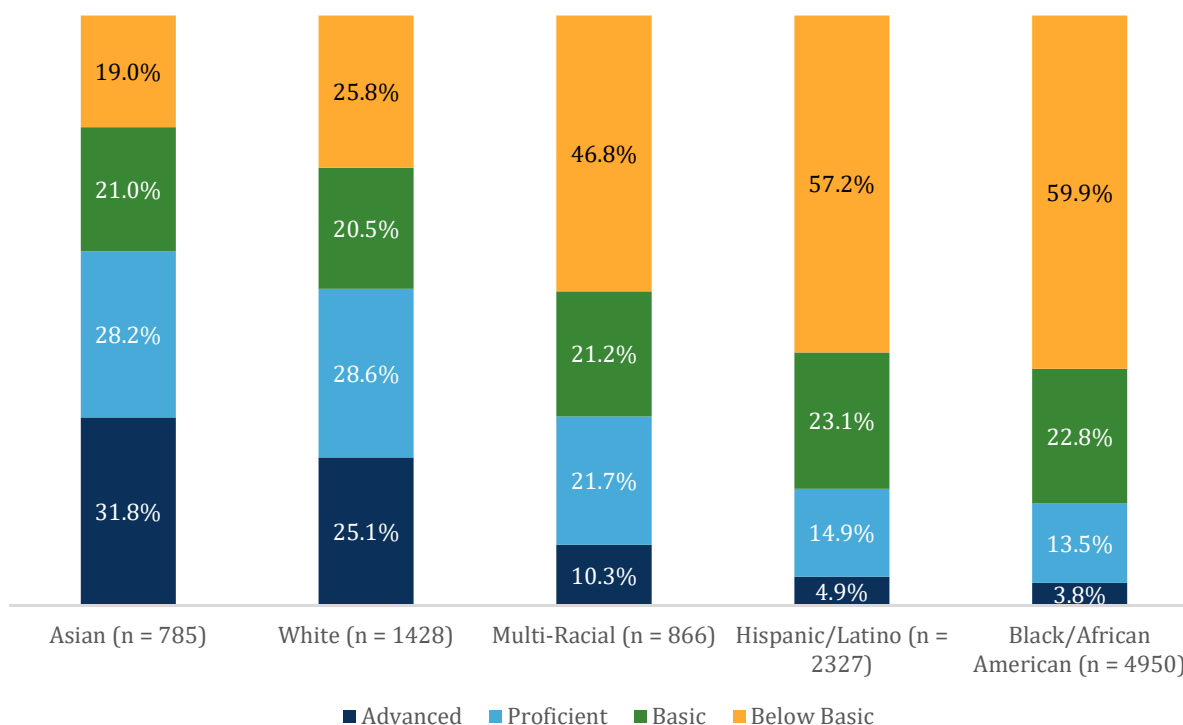
Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-ELA in each subgroup. PASA scores included for students who took PASA instead of PSSA.

Third Grade PSSA-Math Performance

In spring 2019, 27.3% (n = 2841) of all third-grade District students scored proficient or advanced on the PSSA-Math (Figure 5). Across the District, Asian students had the highest percentage scoring proficient or advanced (60.0%) on the PSSA-Math, 6.4 percentage points higher than White students (53.6%). Black/African American and Hispanic/Latino students had the lowest percentage of students scoring proficient or advanced on the PSSA-Math (17.3% and 19.8%, respectively), and they also had the highest percentage of students scoring below basic (59.9% and 57.2%).

Figure 5. PSSA-Math scores of 2018-19 third-grade students by race/ethnicity



Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the Math PSSA in each subgroup. PASA scores are included for students who took PASA instead of PSSA.

How to read this figure: Each bar represents a racial/ethnic student group and the number of students in that group with a score on the spring 2019 PSSA-Math test. For example, 4,950 Black/African American students took the PSSA-Math. Of those, 17.3% scored at the proficient or advanced levels, 22.8% scored at the basic level, and 59.9% scored at the below basic level.

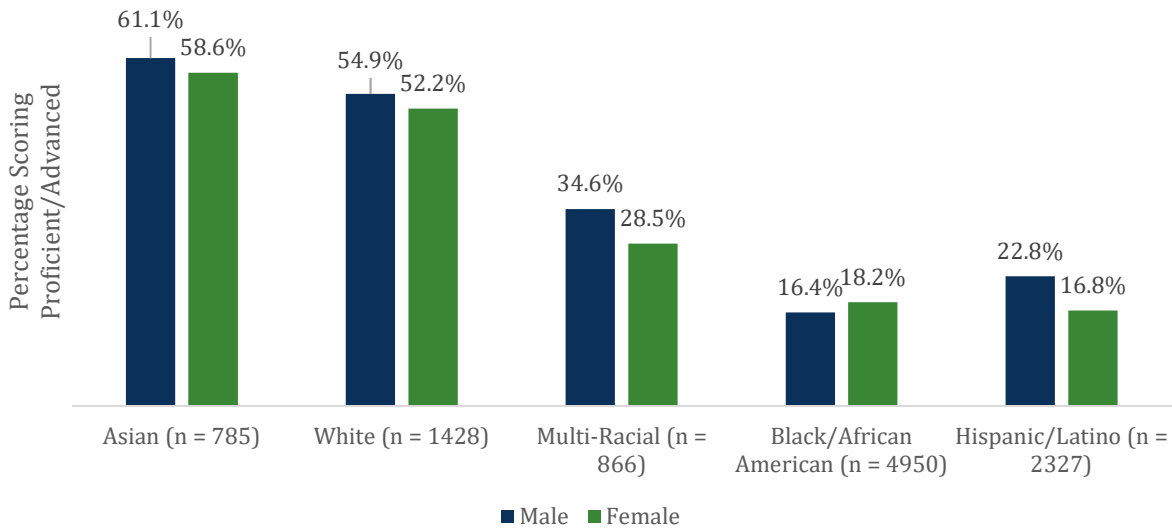
When we analyzed the third-grade PSSA-Math results by gender, we found that unlike the PSSA-ELA, where female students consistently scored higher, male students showed slightly higher percentages of students scoring proficient or advanced (28.4% compared to 26.2%). The percentage of students in performance groups also varied less between genders (Figure 6).

In third grade, Asian male students had the highest percentage of students scoring proficient or advanced (61.1%), followed closely by White male students (54.9%). Black/African American and Hispanic/Latino students had the lowest percentage of male students scoring proficient or advanced (16.4% and 22.8%, respectively) on the PSSA-Math test.

Among third-grade female students, Asian students had the highest percentage of students scoring proficient or advanced (58.6%), surpassing the percentage of White female students by 6.4 percentage points. Black/African American and Hispanic/Latino female students scored similarly

and had the lowest percentage of students scoring proficient or advanced (18.2% and 16.8%, respectively). In a pattern similar to PSSA-ELA performance, Black/African American female students surpassed male students by 1.8 percentage points.

Figure 6. Percentage of 2018-19 third-grade students scoring proficient or advanced on the PSSA-Math, by race/ethnicity and gender

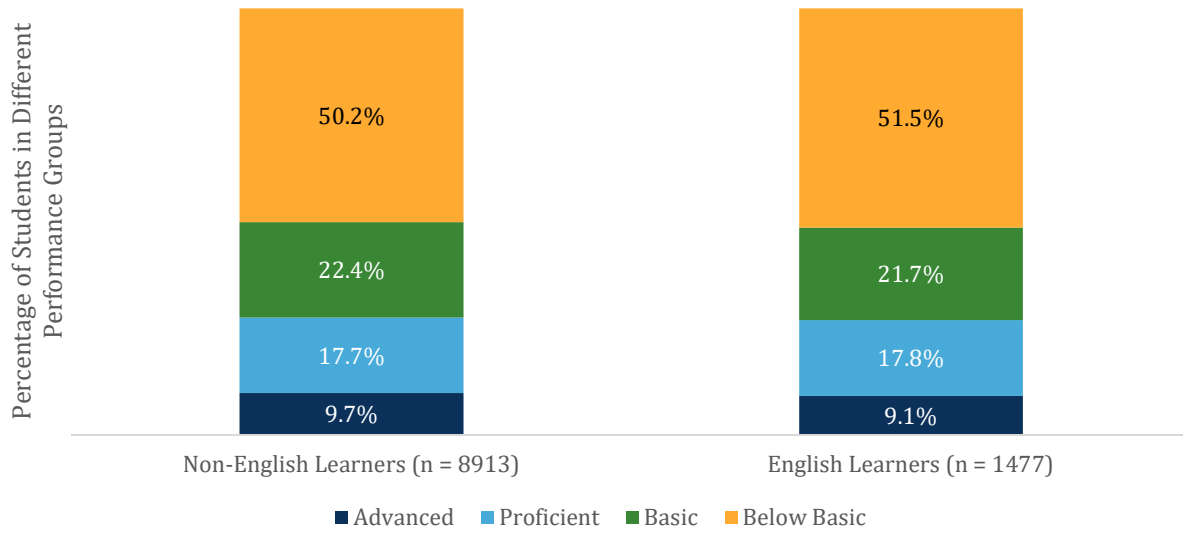


Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-Math in each subgroup. PASA scores are included for students who took PASA instead of PSSA.

English Learner (EL) students and non-EL students scored proficient or advanced on the PSSA-Math at similar rates (26.9% compared to 27.4%; see Figure 7). The percentage of students scoring below basic on the PSSA-Math was similar for EL and non-EL students: 51.5% of EL students and 50.2% of non-EL students scored below basic on the PSSA-Math.

Figure 7. PSSA-Math scores of 2018-19 third-grade students by EL status

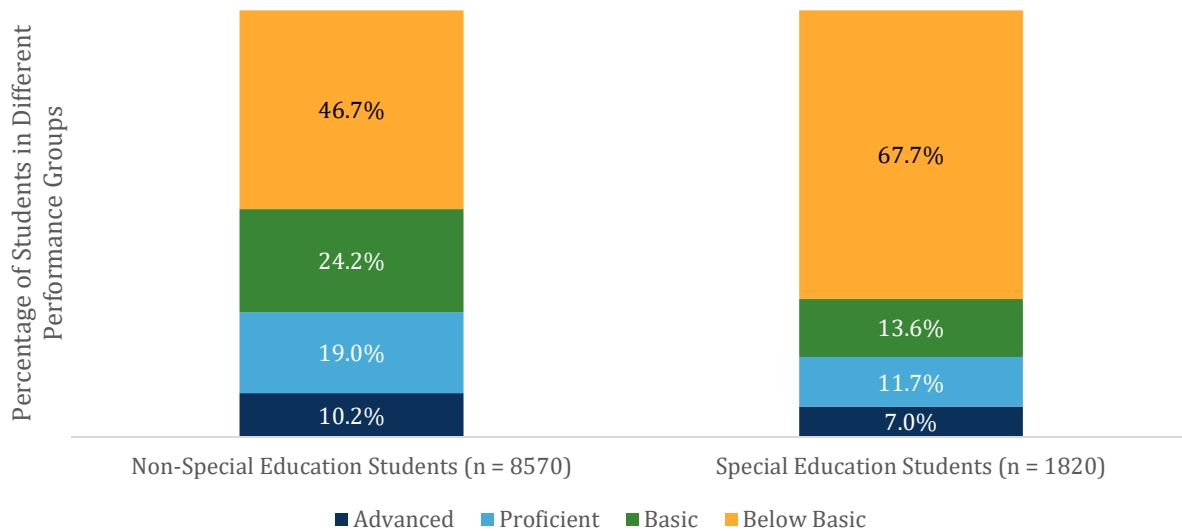


Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-Math in each subgroup. PASA scores are included for students who took PASA instead of PSSA.

Finally, similar to PSSA-ELA performance, a smaller percentage of third-grade special education students scored proficient or advanced on the PSSA-Math compared to non-special education students (18.7% and 29.2%, respectively; see Figure 8). About two-thirds (67.7%) of special education students scored below basic on the PSSA-Math compared to 46.7% of non-special education students (Figure 8).

Figure 8. PSSA-Math scores of 2018-19 third-grade students by special education status



Source: 2019 Accountability Performance File

Notes: American Indian/Alaskan Native and Native Hawaiian/Pacific Islander categories are not included because there were fewer than 15 students in these categories. Ns represent the total number of third-grade male and female students who took the PSSA-Math in each subgroup. PASA scores are included for students who took PASA instead of PSSA.