Examining the Impact of COVID-19 on the Identification of At-Risk Students: Fall 2021 Literacy Screening Findings

OVERVIEW

The Phonological Awareness Literacy Screening (PALS) K-2 assessment is currently administered in all 132[1] Virginia school divisions, to evaluate students' risk for reading difficulties. Used in the Commonwealth for over 20 years, PALS continues to be an important tool to inform teachers, specialists, administrators, and policymakers of individual student needs, school and division progress, and the landscape of students' early literacy.

PALS uses benchmark scores to indicate student risk level: students who score below the benchmark are at high risk for persistent reading difficulties and those scoring at or slightly above the benchmark are considered to be at elevated risk. Moreover, PALS benchmark scores guide the allocation of funding in support of early literacy intervention through the Early Intervention Reading Initiative (EIRI), for students who score below benchmark.

This report compares PALS data across several recent assessment windows that coincide with distinct periods of the COVID-19 pandemic. These windows include Fall 2019 (before the onset of COVID-19), Fall 2020 (amid the pandemic and during which PALS was administered via the traditional in-person or an alternative virtual method[2]), and Fall 2021 (when nearly all classrooms had returned to "typical" in-person schooling and most students were administered PALS in person[3]).

Following is a summary of key takeaways gleaned from the comparison of PALS K-2 scores across these three assessment windows.

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[1] Fairfax County Public Schools (FCPS) began participating in PALS in Fall 2021, in kindergarten classrooms only. FCPS data are not included in this report to provide consistency in cross-year comparisons.

[2] Reported findings include students assessed by either mode of administration because data analyses suggested that both in-person and virtual administrations yielded comparable results.
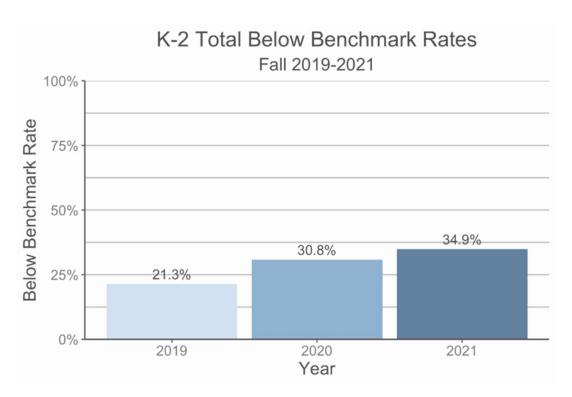
[3] The Fall 2021 rate of K-2 students administered PALS in person was 98.4%.

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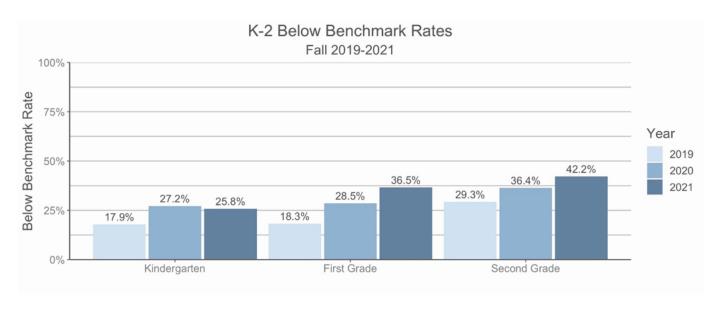
KEY TAKEAWAY #1

PALS data from the three fall assessment windows indicate an elevated percentage of children are beginning the school year identified as at high risk for reading difficulties when compared to before the COVID-19 pandemic.[4]

These rates equate to 232,982 students scoring below benchmark in Fall 2021 (34.9%), which is an increase of 25,765 students from Fall 2020 (during pandemic). Within grade level, although kindergarten rates held steady from Fall 2020 to Fall 2021, the Fall 2021 rate of first and second grade students scoring below benchmark (36.5% and 42.2%, respectively) hit historic highs. See Figures 1 and 2.

FIGURE 1

K-2 Total Below Benchmark Rates
Fall 2019-2021

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[4] Increases between each year in the rate of children scoring below benchmark are statistically significant at $p < .05$.

FIGURE 2

K-2 Below Benchmark Rates
Fall 2019-2021
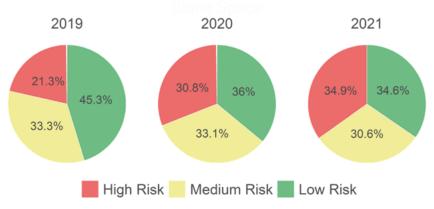
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KEY TAKEAWAY #2

Distributions of high-risk (below benchmark; red), medium-risk (just above benchmark; yellow), and low-risk (green) scores indicate a marked shift across the last three fall assessments whereby the percentage of students identified as at high risk is growing, the percentage of students identified as at low-risk is shrinking, and the percentage of students identified as at medium-risk is holding relatively steady.

In 2019, the percentage of students in the low-risk group was 2.1 times greater than that of the high-risk group. By 2021, the percentage of students in low- and high-risk groups was nearly identical. When considering both high- and medium-risk groups, in 2019 these two categories comprised just over half of the population at 54.6%; however, by 2021 these two groups combined to represent an additional 11% of all scores, comprising 65.5% of the population. See Figure 3.

The students who are identified as at high risk qualify for 2.5 hours of supplemental instruction through EIRI. Medium-risk students are at elevated risk for reading difficulties; however, they are not eligible for supplemental instruction through EIRI. For both groups of students, those at high risk and medium risk, evidence-based core instruction and frequent assessment, or progress monitoring, on key early literacy skills is essential for adequate reading development.
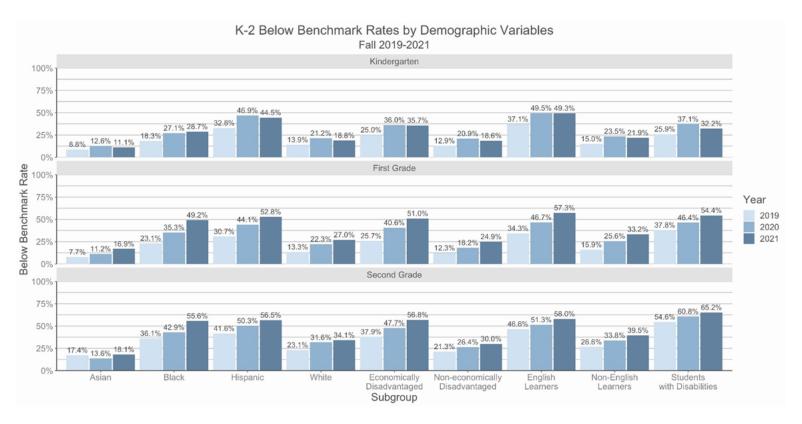
FIGURE 3

PALS K-2 Bands of Risk Membership

KEY TAKEAWAY #3

A comparison of PALS Fall 2021 data across demographic subgroups highlights disproportionately higher rates of below-benchmark scores among students who are Black, Hispanic, economically disadvantaged, English learners, and those with disabilities. This takeaway is supported by the overrepresentation of these students identified as at high risk when compared to both overall rates and their relative proportion of the total student population.

First, students in these groups score below benchmark at a rate greater than that observed for the grade level overall (See Figures 2 and 4). Discrepancies are especially apparent (above the grade-level rate by 10 percentage points or more) for the following groups:

- In kindergarten, the percentage of below-benchmark scores for English learners is 1.9 times higher than overall; Hispanic students, 1.7 times higher; and for economically disadvantaged students, 1.4 times higher.
- In first grade, the percentage of below-benchmark scores for English learners is 1.6 times higher than overall; Hispanic students and students with disabilities, 1.5 times higher; economically disadvantaged students, 1.4 times higher; and Black students, 1.3 times higher.
- In second grade, the percentage of below-benchmark scores for students with disabilities is 1.5 times higher than overall; English learners, 1.4 times higher; and Black students, Hispanic students, and students with disabilities, 1.3 times higher.

FIGURE 4

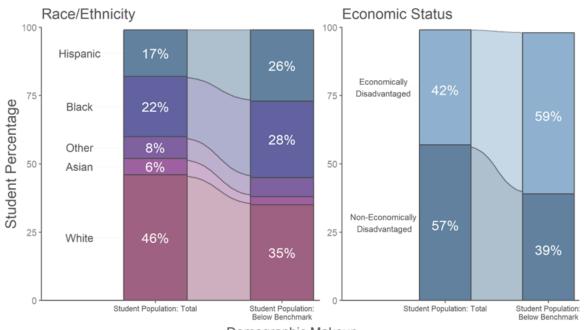K-2 Below Benchmark Rates by Demographic Variables
Fall 2019-2021

Second, the proportion of Black, Hispanic, and economically disadvantaged students identified as below benchmark is over-represented in comparison to their relative proportion of the student population. See Figure 5.

- While Hispanic students make up 17% of the student population, they represent 26% of students scoring below benchmark; Black students make up 22% of the student population but represent 28% of students scoring below benchmark; and economically disadvantaged students make up 42% of the student population but represent 59% of students scoring below benchmark.

- Conversely, White students make up 46% of the student population but represent only 35% of students scoring below benchmark; and non-economically disadvantaged students make up 57% of the student population but represent only 39% of students scoring below benchmark.

FIGURE 5

Fall 2021 K-2
Comparison of Student Proportions

KEY TAKEAWAY #4

A comparison of PALS data by subgroup across the three Fall assessment windows indicates mixed trends by grade level in the percentage of students identified as scoring below benchmark, with kindergarten rates plateauing from Fall 2020 to Fall 2021 (after a marked jump from Fall 2019 to Fall 2020), but first and second grade percentages continuing to rise across the three PALS fall administrations.

Again, differential patterns are observed among some marginalized groups, with the largest increases (greater than 10 percentage points) in below-benchmark scores from Fall 2020 to Fall 2021 seen for the following students (See Figure 4):

- In first grade, the percentage of Black students identified as being at high risk for reading difficulties was 1.4 times higher in Fall 2021 compared to Fall 2020; 1.3 times higher for economically disadvantaged students; and 1.2 times higher for English learners.

- In second grade, the percentage of Black students identified as being at high risk for reading difficulties was 1.3 times higher in Fall 2021 compared to Fall 2020.

KEY TAKEAWAY #5

Among Black students and students with disabilities, discrepancies with Fall 2021 below-benchmark rates reveal disproportionately widening gaps from kindergarten to second grade, when compared to other student subgroups. See Figure 4.

- In kindergarten, the percentage of Black students identified as at high risk for reading difficulties is 28.7%, 2.9 percentage points higher than the overall percentage across the Commonwealth. By second grade, the percentage of Black students identified as high-risk rises to 55.6%, 13.4 percentage points higher than the overall percentage—a gap growth of 10.5 percentage points.

- In kindergarten, the percentage of students with disabilities identified as at high risk for reading difficulties is 32.2%, 6.4 percentage points higher than the overall percentage. By second grade, the rate of students identified as high-risk rises to 65.2%, 23 percentage points higher than the overall percentage—a gap growth of 16.6 percentage points.

IMPLICATIONS

The data in this report indicate Virginia students' sustained risk for reading difficulties, with the overall percentage of K-2 students scoring below benchmark continuing to rise from year-to-year between 2019 and 2021. As classrooms navigated their way back toward typical learning environments in the 2021-2022 school year, students' PALS scores continued to reflect the negative ramifications of pandemic-related learning disruptions.

Especially alarming, overall K-2 Fall 2021 scores indicate the highest percentage of students scoring below benchmark at grade-level entry ever observed at the fall assessment. Further, Fall 2021 rates of below-benchmark scores among first and second grade students were the highest documented in PALS history in those grades at fall assessment. The substantial decrease in the percentage of students scoring in the low-risk category and overall shift in the distribution of scores toward the high- and medium-risk categories suggests that there is a higher proportion of students than ever before who need additional reading support, with this group possibly continuing to increase in the future.

Moreover, Black and Hispanic students, economically disadvantaged students, English learners, and students with disabilities continue to be at disproportionate risk for reading difficulties compared to overall rates and their peers in other demographic subgroups (e.g., White students, non-economically disadvantaged students). Additionally, discrepancies with PALS scores are widening over time among Black students and students with disabilities. Collectively, these patterns suggest that students from marginalized groups, especially, may benefit from targeted intervention and support as they progress through early schooling.

Amid these trends, it is worth noting that while the rate of below-benchmark scores among first and second grade students continues to increase, the rate of below-benchmark scores for incoming kindergarten students held steady from Fall 2020 to Fall 2021. This pattern largely held within student demographic subgroups as well. In short, kindergarten below-benchmark rates show early indications of a pandemic-era plateau, whereas first and second grade rates are continuing an upward trajectory.

As the spring semester and end of the 2021-2022 school year approach, it is important to consider that student literacy learning is not yet "back to normal." By and large, below-benchmark rates are still moving in the wrong direction, and a larger proportion of students than ever before are at high and medium risk for reading difficulties. Divisions and schools will require increased instructional capacity to meet the literacy needs of Virginia students, with particular emphasis on Black, Hispanic, and economically disadvantaged students, as well as English learners and students with disabilities. Effective instruction and intervention are critical because reading difficulties typically persist for students who do not develop adequate reading skills within the first three years of schooling. In turn, reading deficits often compound to negatively affect other areas of academic learning, engagement, and success. Thus, without adequate, sustained, and targeted supports, it is likely that many of these students will not only continue to struggle with reading, but in other domains as well.

The data presented in this report underscore that students' literacy development continues to be negatively impacted by disrupted learning opportunities resulting from the pandemic. Students who have been identified as at high risk (below benchmark) will now need to learn how to read at an accelerated rate, and those identified as medium risk will likely also need additional supports. School personnel—especially classroom teachers, special education teachers, and reading specialists—must be equipped with the knowledge of how to effectively implement evidence-based reading instruction and have access to high-quality intervention tools to intensify reading instruction.

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