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- Students designated as at-risk are an average of **15-18 instructional months behind** pre-pandemic national averages, compared students who are not at-risk are about 4-5 instructional months behind. Numeracy skills lag literacy by about one instructional month. **Upcoming PARCC achievement data are likely to resemble results from the first administration in 2015**, erasing five years of citywide gains across student groups.



When students returned for in-person learning last fall, many faced significant academic and social-emotional wellbeing challenges. Spring 2021 assessment data found disproportionately larger amounts of unfinished learning for students designated as at-risk in math and reading. Additionally, student wellbeing survey data found that DC's most vulnerable students were much more likely to have experienced significant trauma and unhealthy physical, social, and emotional stress during COVID-19's first year.

DC schools were able to access additional resources to address students' academic and social-emotional wellbeing needs with federal recovery funds. However, new challenges (including the COVID-19 variants, staffing shortages, chronic absenteeism, and student bullying and fighting) required problem-solving. The winter assessment data update showed that many unfinished learning gaps continued to widen during the fall semester.

This brief continues EmpowerK12's research into the pandemic's impact on DC student achievement in math and reading utilizing spring LEA-administered assessment data for students in grades K-8. We find signs of learning rebounding for the first time since March 2020. Academic growth rates during the second semester were typical of pre-pandemic growth rates in DC, and student wellbeing survey results showed significant improvement and correlation with academic gains. Yet, staggering gaps in unfinished learning remain, especially for students designated as at-risk and students with disabilities.

Spring Assessment Student Sample

Our sample includes an estimated 80% of DC students who were enrolled in grades K-8 at the end of the spring semester. The demographic makeup of students resembles the schoolage population. DCPS and participating public charter schools shared their spring computer-adaptive formative assessment data from NWEA MAP and iReady and end-of-year teacher-administered reading assessments of early elementary school students.

Some analyses focus exclusively on a cohort of 3rd-8th graders who participated in LEA-administered tests since 2018-19 to longitudinally track the pandemic's impact over time. Figure 1 provides demographic information about our study's full sample and 3rd-8th cohort sample with longitudinal data.

FIGURE 1. DC ENROLLMENT AND EMPOWERK12 SPRING SAMPLE INFORMATION

All Students	dc k-8 enrolled 57,530	SPRING SAMPLE 44,598	3rd-8th cohort 14,378
Not At-risk	53%	54%	50%
Students with Disabilities	17%	14%	17%
ELL	14%	15%	16%
Black	64%	61%	67%
Latino	17%	19%	18%
White	13%	15%	11%
Asian	2%	2%	1%

Note: At-risk students come from households that receive SNAP or TANF benefits, are homeless, or are in the foster care system.

FINDINGS: ACADEMIC GROWTH AND ACHIEVEMENT GAINS DURING THE SECOND SEMESTER

- In Spring 2022, student growth rates in grades 3-8 math and reading **began** rebounding to typical pre-pandemic growth rates and academic achievement improved. Early signs of a literacy rebound is seen for students in grades K-2.
- If the rate of improvement from Spring 2022 continues, **DC will regain pre- pandemic achievement levels in 2027 five years from now.** Yet the rate of improvement for students designated as at-risk, students with disabilities, and English language learners is slower than their peers.
- Students designated as at-risk are an average of **15-18 instructional months**behind pre-pandemic national averages, compared students who are not at-risk are about 4-5 instructional months behind. Numeracy skills lag literacy by about one instructional month. Upcoming PARCC achievement data are likely to resemble results from the first administration in 2015, erasing five years of citywide gains across student groups.

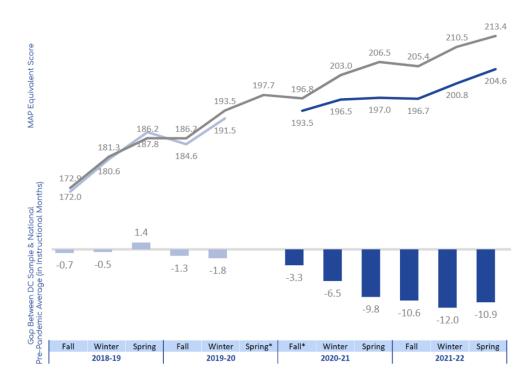
We examined a cohort of DC students whose testing history could be followed from School Year 2018-19 through 2021-22. These students were enrolled in grades 3-8 last year and had MAP and iReady test scores from pre-pandemic school years. We utilized national norm data to equate iReady scores with a MAP score and analyze trends.

Figure 2 compares average fall, winter, and spring achievement of the 2021-22 DC 3rd-8th grade cohort over time with national pre-pandemic averages. The average DC math and reading score was not statistically different than the national average prior to COVID-19, but score trends shifted dramatically after winter 2020 when school went virtual. This past fall term's growth was 20% lower than national pre-pandemic averages, compared to 52% lower than national pre-pandemic averages during 2020-21's virtual fall semester. The latest spring 2021-22 term was the first semester where growth rates outperformed the pre-COVID national average, 31% higher than typical.

To provide additional context on the meaning of scale score gaps between the DC and national averages, we show how many instructional months of typical growth would be required to make up the difference. For example, our students' national peers grew 8 points (205.4 in the fall to 213.4 in the spring) during the typical pre-pandemic academic 10-month school year. While DC students grew an average of 7.9, similar to the national pre-pandemic average, the average score of 204.6, trailing the national average by 8.8 points, represents a **10.9-month instructional gap**.

FIGURE 2. MATH AND READING DC 3-8 COHORT ACHIEVEMENT COMPARED TO NATIONAL PRE-PANDEMIC NORMS

■ DC Sample Pre-Pandemic ■ DC Sample Pandemic ■ National Pre-Pandemic Norms

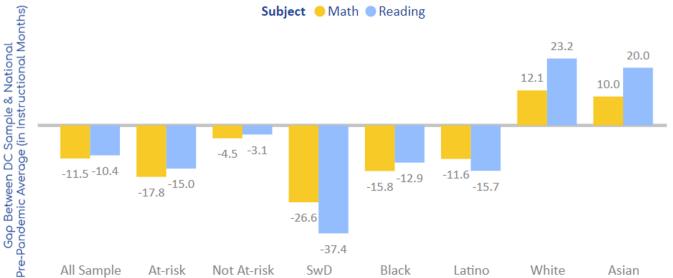


DC 3-8 Cohort definition: 3rd-8th graders in 2021-22 who tested in 2018-19 and 2021-22 as well as most of the tests in-between. Demographic information about the 14,378 cohort students in this analysis can be found on the prior page. National Pre-Pandemic Norms were established by NWEA in 2020 and represent the average score trajectory of students nationwide before the pandemic.

During the virtual year, achievement gaps between DC students and expected scores widened faster in math than reading for most historically underserved student groups. Figure 3 shows the spring 2022 instructional month gap in math and reading by student group. Overall, numeracy skills lag literacy by one instructional month. Math performance, which was slightly higher than reading achievement before COVID, now trails reading.

FIGURE 3. MATH AND READING UNFINISHED LEARNING GAPS IN INSTRUCTIONAL MONTHS AS OF SPRING 2022

Subject • Math • Reading

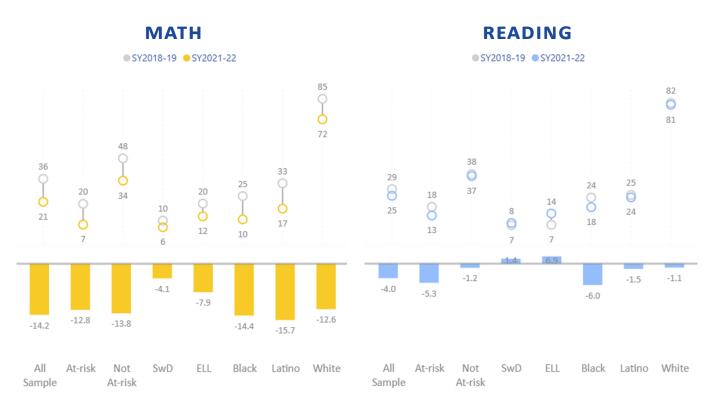


FINDINGS: LIKELY IMPACT ON PARCC ACHIEVEMENT

GRADES 3-8

Typically, the percent of students above the national 60th percentile on iReady and MAP has been a good proxy for estimating the percent of students meeting or exceeding expectations on PARCC. DC will publicly release 2022 PARCC results soon. Figure 4 provides data on the percent of students at or above the national 60th percentile in spring 2019 and spring 2022. This chart includes all tested students in both years, so changes in the population of tested students within a group could show achievement gains even though most students experienced academic slide during the pandemic.

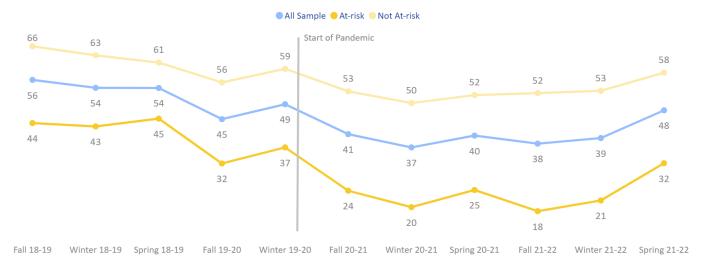
FIGURE 4. PERCENT OF STUDENTS AT/ABOVE THE 60TH PERCENTILE IN 2019 AND 2022 IN GRADES 3-8



FINDINGS: LITERACY IMPROVEMENT IN EARLY GRADES

Students in grades K-2 demonstrated a rebound in literacy rates via teacheradministered assessments such as DIBELS, TRC (Text Reading Comprehension), Fountas & Pinnell, MAP, and iReady. Figure 5 shows the percent of students enrolled in grades K-2 whose reading performance was on or above grade level by season. We show results for all sample students, students designated as atrisk, and those who are not designated as at-risk. Percentages are "seasonally adjusted" using other assessment data to adjust for the imperceptible extra support teachers may provide while administering the test. Additional technical details about this process are provided in a separate appendix.

FIGURE 5. PERCENT OF STUDENTS IN GRADES K-2 ON OR ABOVE GRADE LEVEL IN READING





FINDINGS: STUDENT WELLBEING IMPROVEMENT AND

LINK TO ACADEMIC GOALS

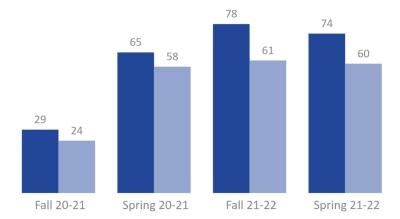
• Student wellbeing (which is associated with academic gains) **significantly improved compared to School Year 2020-21.** Students attending schools with higher Student Wellbeing Index scores are more likely to have larger spring academic growth rates than at schools with lower wellbeing Student Wellbeing Index scores.

In fall 2020, student wellbeing survey results indicated many students, especially our most vulnerable student populations (students who report experiencing food insecurity, neighborhood safety concerns, or home instability), reported struggling with feeling successful at school, were unlikely to feel happy, and struggled to redefine virtual relationships with their peers. In 2021-22, wellbeing significantly improved upon return to in-person school with fall and spring wellbeing index scores higher than the same season during the virtual year.

Figure 6 shows the change in student wellbeing index scores, a holistic measure of a student's social, emotional, physical, and scholarly wellbeing, of our sample of DC 3rd-8th graders (average n-size of 1,293 students) since the first administration in Fall 2020.

FIGURE 6. AVERAGE STUDENT WELLBEING INDEX SCORE FOR ALL SAMPLE STUDENTS AND MOST VULNERABLE STUDENTS

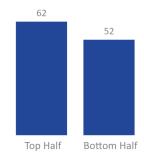
Student Group ● All Sample ● Most Vulnerable



Most vulnerable students = students who report experiencing food insecurity, neighborhood safety issues, or home instability.

Schools with higher student wellbeing index scores demonstrated greater improvement in academic growth. Figure 7 shows the difference in spring median math and reading growth percentile for schools with wellbeing index scores that ranked in the top half of participating schools compared with those ranked in the bottom half.

FIGURE 7. AVERAGE SPRING MEDIAN GROWTH PERCENTILE BY THE SCHOOL'S STUDENT WELLBEING INDEX SCORE RANK



BRIGHTSPOTS: STRATEGIES AND RECOMMENDATIONS

• Seven schools that serve a majority student population designated as atrisk, but demonstrated math and reading achievement well above schools serving similar students are identified as "bright spot" schools: Center City Congress Heights, Friendship Blow-Pierce, Friendship Southeast, Moten ES, Patterson ES, Savoy ES, and Walker-Jones EC.

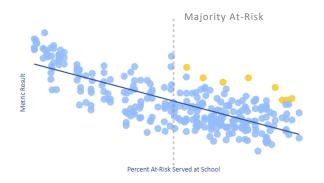
This brief highlights the promising practices and strategies of seven DC schools across DC Public Schools and charter schools:

- Center City Congress Heights
- Friendship Blow-Pierce
- Friendship Southeast
- Moten FS
- Patterson ES
- Savoy ES
- Walker-Jones FC



These schools that serve a majority student population designated as at-risk and demonstrated math and reading achievement well above schools serving similar students. Figure 8 displays the trend between achievement in grades K-8 and percent at-risk served with bright spot schools above the trend line highlighted in yellow.

FIGURE 8. MATH AND READING ACHIEVEMENT RATES COMPARED TO PERCENT AT-RISK SERVED



Last year, the bright spot schools served 2,675 students, of whom 2,098 are designated as at-risk. All except Walker-Jones EC are located east of the Anacostia River in Wards 7 and 8. We met with their principals and asked about the keys to their success, how they addressed new challenges, and what they are looking forward to in the upcoming school year. Below we highlight common strategies we heard from the principals.

Six Bright Spot Common Strategies

Bright spot school leaders emphasized one primary overarching theme: **providing** students with as much time as possible learning in-person from data-savvy educators who students know, love, trust, respect, are inspired by, have fun with, and know their content deeply. The following common strategies align with this imperative.

1 More time with great adults inside and outside the traditional school day:

Bright spot educators taught grade level content from day one, even though most students returned with significant skill gaps. To ensure students received the additional support needed to access rigorous content and be successful, leaders took advantage of federal recovery dollars to hire additional instructional and small-group coaches, place two adults in classrooms, offer high-impact tutoring (using school staff and outside organizations), and provide Saturday enrichment academies.

- **2 Joyful learning environments:** When school buildings reopened last fall, bright spot schools worked hard to provide joyful learning opportunities that improved student and adult wellbeing. Often, this started with instructional leaders modeling fun professional development activities for teachers. We heard creative examples of ways educators engaged students to make being at school and learning fun, such as "sunshine committees." School leaders also mentioned the importance of "morning meeting" and community-building time, where teachers focused on student peer relationships, zones of regulation, values for the week, fun activities, and therapeutic play. One bright spot school shared how they utilized student and staff wellbeing data to adjust strategy mid-year.
- **3** Science of Reading: At schools serving early elementary grades, almost every school leader raised Science of Reading as a key recovery strategy. One component to improving reading comprehension is the impact of listening and speaking at the younger grade levels. Science of Reading instruction focuses more attention, but not exclusively, on skills like phonological awareness, letter sounds, spelling, oral reading, and fluency. Schools that were recent cited the importance of Fundations reading program and tools for Tier 1 and 2 interventions, the DCPS DC Reading Clinic, and using "sound walls" (instead of "word walls").

4 Relationships, collaboration, and communication: Bright spot schools emphasized again and again the importance of creating strong relationships between and among school leaders, teachers, students, and families. Principals mentioned modeling the kind of fun team-building activities and empathetic, therapeutic approaches with their staff that filtered down to classrooms between teachers and students/families. They visited every classroom each morning to ask, "How are you feeling? What do you need to be successful today?" Educators at bright spots tended toward over-communication with families on COVID protocols, importance of attendance, student goals and progress data, and sharing the fun, joyful activities happening at school.

5 High expectations for students and staff with empathy and a therapeutic approach: We heard many examples of how bright spot schools achieved a balance of high expectations with empathy and a therapeutic response across how they approached family engagement, student and staff attendance, instruction, and social-emotional wellbeing. Their key to maintaining high expectations was through proactive communication that began by collaboratively establishing ambitious goals with students and adults. Conversations quickly shifted to listening sessions where students and adults discuss challenges and needs to meet goals in an unthreatening environment. Then, together, adults and students identified creative solutions and a monitoring schedule to make sure it worked. Bright spot principals mentioned how some effective solutions, like Saturday Academy, are expensive and currently only possible using additional ESSER funds that expire in 2024.

6 Frequent data analysis and progress monitoring: Educators at bright spot schools started with specific goals they wanted to see from students by the end of the year. Then, they backwards mapped what progress was required, and by when, and identified what data would help them know whether students are on track. Throughout the year, teachers utilized daily exit tickets and weekly data deep-dive meetings to keep pace with changes happening in classrooms and monitor student progress. Weekly data meetings included looking at student work, attendance data, and wellbeing data alongside teachers, instructional coaches, counselors and social workers. Several leaders mentioned that they had "heard about that data thing" for years, agreed to try it with fidelity, and found success in the long-term results for students.