



BENCHMARKING LEARNING LOSS RECOVERY EFFORTS

March 2023

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INTRODUCTION

A Hanover Research (Hanover) partner is committed to ensuring that all students have the opportunity to meet grade level learning standards and excel academically. Like many districts across the country, students in this district experienced learning loss due to the COVID-19 Pandemic. District leaders seek to mitigate learning loss through accelerated learning strategies, especially in the areas of early elementary literacy and secondary math. Research finds that acceleration strategies are more effective than remediation at helping students reach grade level and stay engaged in instruction. The most important aspect of acceleration is instructing students using grade-level content, while providing in-the-moment or supplemental instruction in concepts students have not mastered yet to give them the tools they need to comprehend grade-level content.¹

To support efforts to rectify learning loss in early elementary literacy and secondary math, Hanover Research (Hanover) created the following benchmarking report to provide examples of how peer and spotlight districts are implementing accelerated learning strategies. When possible, Hanover also discusses the effect accelerated learning strategies have had on student academic outcomes.

METHODOLOGY

Hanover identified peer school districts using Hanover’s Peer Generator tool. Then, Hanover refined this list to identify districts with extensive accelerated early literacy and secondary math programs. Hanover also researched spotlight school districts with exemplary early literacy and secondary math acceleration programs. Figure ES1 shows the peer districts chosen and their demographics, as well as demographics for spotlight districts.

Figure ES1 Peer and Spotlight Districts





PEER DISTRICTS							
DISTRICT	STATE	ENROLLMENT	STUDENTS OF COLOR	EL	SPED	POVERTY	MEDIAN HH
Richardson Independent School District	TX	37,787	71%	26%	12%	16%	\$63,685
Desert Sands Unified School District	CA	26,982	83%	23%	11%	16%	\$59,882
Lodi Unified School District	CA	27,896	82%	20%	14%	17%	\$71,699
San Diego Unified School District	CA	97,968	76%	19%	15%	12%	\$78,717
SPOTLIGHT DISTRICTS							
DISTRICT	STATE	ENROLLMENT	STUDENTS OF COLOR	EL	SPED	POVERTY	MEDIAN HH
Baltimore City Public Schools	MD	77,856	92%	9%	16%	25%	\$52,162
Albuquerque Public Schools	NM	80,494	74%	18%	17%	17%	\$62,515

Source: Hanover Research Peer Generator


¹ [1] “Accelerate, Don’t Remediate.” TNTP, 2021. <https://files.eric.ed.gov/fulltext/ED615462.pdf> [2] “Unlocking Acceleration: How Below Grade-Level Work Is Holding Students Back in Literacy.” TNTP, 2022. <https://files.eric.ed.gov/fulltext/ED624426.pdf>




RECOMMENDATIONS

Based on our findings, Hanover suggests that district leaders consider the following recommendations:

-  **Continue to train staff in grade and subject-specific acceleration strategies to successfully close learning gaps for students.** All the districts researched for this report, regardless of grade level or subject matter (e.g., early elementary literacy and secondary math) provide professional learning so that teachers have the knowledge and tools needed to accelerate learning for students. While some districts offer workshop style professional learning, many also incorporate instructional coaching and professional learning communities into their teacher training model. Districts should consider [Hanover's Educator Learning Center](#) to deliver targeted training modules and resources for teachers and staff around communicating mathematics thinking and literacy strategies to facilitate students' conceptual understanding of math in Grades 6-12, as well as literacy development toolkits for preschool through Grades 8.
-  **Use data tools to analyze and monitor student achievement and instructional practices, as well as to identify schools with the highest need.** Many of the districts researched for this report use a prioritized intervention model to ensure that schools with the most need receive the most support. For example, in San Diego Unified School District, while all teachers receive professional learning on literacy acceleration, all high needs schools where over 60 percent of students are not reading at grade level receive instructional coaches and more intensive training on a regular basis. In addition to using state test scores to monitor achievement in math and ELA, districts can partner with Hanover to develop a quantitative analysis specific to its acceleration needs and priorities.
-  **To accelerate learning specifically for secondary math students, embed extended learning time and small group instruction into the school day.** For example, Desert Sands Unified School District provides extended math instruction before and after school for students who behind grade level. Albuquerque Public Schools provide virtual one-on-one and small group math instruction on foundational math skills during the school day, and Lodi Unified School District offers summer math programs for students. Hanover's report on [Extended Learning Supports for Secondary Students](#) can serve as a resource on math and ELA supports for high school students.
-  **To accelerate literacy learning for early elementary students, use dedicated reading support teachers and provide continued staff training in instructional programs based on the Science of Reading.** Lodi Unified School District trains teachers in SIPPS, Baltimore City Public Schools trains teachers in Wit and Wisdom, and San Diego Unified School District trains teachers in Fountas and Pinnell. San Diego Unified School District hires reading support teachers to provide direct, daily classroom push-in small group reading instruction for its youngest students up to Grade 2 for three-to-four-week acceleration cycles. To explore evidence on how the Science of Reading supports literacy, district leaders can review [Hanover's Research Brief on the Science of Reading](#).

KEY FINDINGS

-  **Some districts that implement accelerated learning strategies in secondary math are seeing improved academic outcomes.** Richardson Independent School District saw improved math outcomes for Grades K-12 students after implementing accelerated learning strategies. While these outcomes do not rule out other factors that could also potentially lead to improved student learning, they do show that accelerated learning strategies in math hold promise for student learning.

-  **Some districts that implement accelerated learning strategies in early literacy are seeing improved academic outcomes.** Results from Lodi Unified School District's Local Control and Accountability Plan (LCAP) from the 2022-2023 school year find that, due to interventions, students increased three points on English Language Arts (ELA) assessments since 2021-2022 implementation. Research from Baltimore City Public Schools' individualized tutoring intervention finds that students receiving reading tutoring are reaching literacy benchmarks faster than peers, and their assessment scores are on average three percentage points higher than students not receiving the intervention.
-  **While many learning loss recovery efforts address worsening academic outcomes in ELA and math due to the impact of COVID-19 Pandemic, many acceleration efforts are of benefit to all students.** Almost all the districts discussed in this report are integrating personalized learning opportunities into the school day so students can learn content specific to their needs. Districts are extending learning time for students through extended school days, maintaining or reducing class sizes, offering virtual learning and tutoring during the school day, offering summer school, or offering a combination of the aforementioned strategies. In addition, some districts like Lodi Unified School District and Desert Sands Unified School District are closely monitoring student achievement data in order to adjust instructional practices and to plan tiered interventions as an ongoing effort to increase student achievement.
-  **Districts are hiring teachers to fill learning gaps and incentivizing teachers to stay in the district.** Richardson Independent School District hired more Grade K-2 certified literacy teachers to support literacy instruction in elementary schools. Baltimore City Public Schools hired more middle school algebra teachers to help students reach grade level before graduation. Albuquerque public schools implemented pay raises to motivate teachers to stay in state, while recruiting new teachers nationally.

SECTION I: PEER DISTRICTS

The following section outlines learning loss recovery efforts of peer districts.

LODI UNIFIED SCHOOL DISTRICT

Lodi Unified School District (LUSD) uses professional learning, instructional support, and personalized learning strategies to close learning gaps in secondary math and early literacy. The Smarter Balance Tests assessment finds that LUSD students’ academic outcomes were negatively impacted by the COVID-19 Pandemic with approximately 39 percent of students performing at or above grade level in ELA and approximately 33 percent of students performing at grade level in math in the 2021-2022 school year. These outcomes fall below average California district outcomes for the same school year, indicating that LUSD students need comprehensive academic support through accelerated learning strategies.² Figure 1.1 outlines elements of LUSD’s 2022-2023 School Plan for Individual School Achievement (SPSA) that directly and indirectly support elementary students’ math achievement and secondary students’ ELA achievement through accelerated learning.

Figure 1.1 Interventions from LUSD’s SPSA

SECONDARY MATH	ELEMENTARY LITERACY
<ul style="list-style-type: none"> ▪ Improve math outcomes by providing teachers with instructional support, instructional coaching, common core materials, and intervention support. ▪ Improve high school academic outcomes through intervention and enrichment. ▪ Maintain class size of 31:1 	<ul style="list-style-type: none"> ▪ Improve literacy by providing teachers with instructional support, instructional coaching, common core materials, and intervention support. ▪ Improve literacy outcomes through intervention support and common core materials. ▪ Maintain class size of 24:1
STRATEGIES THAT BENEFIT ALL STUDENTS	
<ul style="list-style-type: none"> ▪ Implement a data management system to collect and monitor student achievement data. School staff will use student achievement data to adjust instructional practices and plan tiered interventions to address student deficits. Subgroup data will be analyzed to ensure all students are making adequate progress. ▪ Offer supplemental intervention and enrichment opportunities for Grade K-12 students based on assessment data. Intervention and enrichment opportunities include language, literacy, mathematics intervention; STEAM Supplemental Resources; Summer School; and After School interventions. 	

Source: Lodi Unified School District³

LUSD is using \$500,000 of COVID-19 relief funds on targeted literacy acceleration for early elementary students. To help students reach early literacy standards, Lodi embeds a Science of Reading program called Systematic Instruction in Phoneme Awareness Phonics and Sight Words (SIPPS) into elementary curricula. In classroom practice, teachers implement SIPPS through small group instruction, where students work in stations with leveled groups, allowing teachers to provide small group support. In their leveled groups, students complete word study activities where they practice using new vocabulary or rehearse different word sounds. SIPPS also provides teachers with ample leveled books so students can independently practice their literacy skills from enriching texts.⁴ **Results from LUSD’s Local Control and Accountability Plan (LCAP)**

² Writer, W.B.-S.S. “Lodi Unified Test Scores See Sharp Declines during Pandemic.” Lodinews.Com, 2022. https://www.lodinews.com/news/article_523e7976-55a4-11ed-96b3-8f671dce1d72.html

³ Figure content adapted and verbatim from “2022-23 Local Control and Accountability Plan (LCAP).” Lodi Unified School District, 2022. pp. 15–70.

⁴ Recede, K. “Lodi Unified Uses Federal COVID-19 Money to Boost Literacy among Students.” KCRA, April 22, 2022. <https://www.kcra.com/article/lodi-unified-uses-federal-covid-19-money-boost-literacy-among-students/39789899>

from the 2022-2023 school year find that, due to interventions, students increased three points on ELA assessments since 2021-2022 implementation.⁵

RICHARDSON INDEPENDENT SCHOOL DISTRICT

Richardson Independent School District (Richardson ISD) uses professional learning and extended instructional hours to close learning gaps in secondary math and early literacy. State testing from the 2020-2021 school year finds that while Richardson ISD student outcomes surpassed those of peer districts, student learning was negatively impacted by the COVID-19 Pandemic, with middle school students most impacted. Richardson ISD utilizes accelerated learning strategies to rectify COVID-19 learning gaps, and funds accelerated learning efforts through a combination of COVID-19 relief funds and district funds. Richardson ISD spends approximately \$28.2 million a year to support academic recovery programs, in addition to a one-time allocation of \$4.1 million dollars to jumpstart initiatives. Richardson ISD plans to continue accelerated learning supports through the 2023-2024 school year, totaling four years of implementation.⁶ The following figure outlines Richardson ISD’s learning acceleration plan in the areas of early elementary literacy and secondary math.

Figure 1.2 Richardson ISD Learning Acceleration Plan

SECONDARY MATH	ELEMENTARY LITERACY
<ul style="list-style-type: none"> ▪ Reduce class sizes at all junior highs and high schools, with class sizes further reduced for core subjects and remediation courses. 	<ul style="list-style-type: none"> ▪ Advanced phonics training and materials for every Richardson ISD Grade K and Grade 1 teacher. ▪ Additional training and support for dyslexia services and ARD/504. ▪ ELA interventionists in every elementary school for targeted small group instruction and acceleration. ▪ Additional certified Grade K-2 level support teachers in every elementary school.
PROGRAMS THAT BENEFIT ALL GRADES	
<ul style="list-style-type: none"> ▪ Comprehensive summer intervention and enrichment opportunities for students in Grades Prek-8. ▪ Expansion of Saturday instructional/intervention opportunities for students. ▪ Increase student access to counseling services and community resources over the summer and during the school year. 	

Source: Richardson ISD⁷

Accelerated learning implementation led to improvements in Grades K-10 student outcomes, with half of students meeting ELA and math standards. To further close learning loss gaps, Richardson ISD plans to perform program evaluation assessments on learning loss initiatives and offer regularly occurring teacher professional learning on acceleration.⁸

⁵ “2022-23 Local Control and Accountability Plan (LCAP),” Op. cit., p. 13.

⁶ “[1] District Proposes Academic Acceleration Plan in Response to Pandemic Learning Loss.” Richardson Independent School District, 2021. <https://web.risd.org/home/district-proposes-academic-acceleration-plan-in-response-to-pandemic-learning-loss/> [2] Wadsack, W.C. “Richardson ISD to Spend \$35 Million in Federal Funds to Combat Learning Loss.” Community Impact, 2021. <https://communityimpact.com/dallas-fort-worth/richardson/education/2021/09/03/richardson-isd-to-spend-35-million-in-federal-funds-to-combat-learning-loss/>

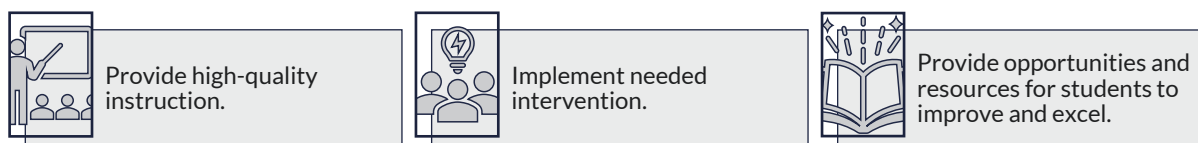
⁷ Figure content verbatim from “District Proposes Academic Acceleration Plan in Response to Pandemic Learning Loss,” Op. cit.

⁸ King, J. “Richardson ISD Using Testing Data to Help Assess Learning Loss.” Community Impact, 2022. <https://communityimpact.com/dallas-fort-worth/richardson/education/2022/03/15/richardson-isd-using-testing-data-to-help-assess-learning-loss/>

DESERT SANDS UNIFIED SCHOOL DISTRICT

Desert Sands Unified School District (DSUSD) uses professional learning, extended instructional hours, and progress monitoring to close learning gaps in secondary math and early literacy. State testing from the 2020-2021 school year finds that (DSUSD) student academic outcomes fell below California State averages, with approximately 60 percent of DSUSD students below grade level in ELA and over 75 percent of students below grade level in math.⁹ DSUSD focuses acceleration efforts to mitigate Covid-19 learning loss on three key goal areas, as outlined in Figure 1.3.

Figure 1.3 DSUSD Learning Loss Mitigation Goal Areas



Source: Patch¹⁰

DSUSD employs a variety of strategies to monitor student growth. Specifically, DSUSD uses a combination of academic assessments, grading, and teacher professional learning to holistically track student growth. Then, DSUSD provides supplementary programs to students who most need additional support. Some of the programs that the district provides are such as early childhood Head Start and state-funded preschool, gifted and talented, Academic Intervention Programs, and summer school for all grade levels.

Figure 1.4 outlines elements of DSUSD’s 2022-2023 School Plan for Students Achievement (SPSA) that directly and indirectly supports elementary students’ math achievement and secondary students’ ELA achievement.

Figure 1.4 Interventions from DSUSD’s SPSA

SECONDARY MATH	ELEMENTARY LITERACY
<ul style="list-style-type: none"> Reduce class size, cover coverage in sections, and provide additional support for at-risk students. Add intervention courses at the beginning and end of the day to improve attendance, credit attainment, and increase the graduation rate. Provide before/during/after school math interventions for students not meeting standards. Hire tutors to help with intervention. 	<ul style="list-style-type: none"> Provide before/during/after school reading interventions for students not meeting standards. Provide professional learning for teachers on evidence-based strategies to support all learners. Provide support for early literacy and foundational skills to support students below grade level.
PROGRAMS THAT BENEFIT ALL STUDENTS	
<ul style="list-style-type: none"> Use data tools to analyze and monitor student achievement and instructional practices. Through the District TRAC process, Site Leadership Teams use data to assess and monitor student progress, determine and address district and school-wide instructional goals, and create an appropriate action plan to increase student achievement, including the implementation and analysis of iReady diagnostics. Provide an instructional coach to support teachers in instruction, intervention, and enrichment. Provide a full-time counselor to support site multitiered intervention efforts, which may include participation on tiered teams, supporting proactive and preventative universal, targeted, and intensive interventions. 	

Desert Sands Unified School District¹¹

⁹ McAllister, T. “Desert Sands USD Student Test Scores Fall, New State Data Show.” Patch, 2022.

<https://patch.com/california/palmdesert/desert-sands-usd-student-test-scores-fall-new-state-data-show>

¹⁰ Figure content adapted and verbatim from Ibid.

¹¹ Figure content adapted and verbatim from “School Plan for Students Achievement and Annual Evaluation Template.” Desert Sands Unified School District, 2022. <https://www.dsusd.us/common/pages/DisplayFile.aspx?itemId=25014967>

SAN DIEGO UNIFIED SCHOOL DISTRICT

San Diego Unified School District (SDUSD) uses a tiered system to provide specialized literacy instructional support to schools with student populations most in need, while also ensuring that all district schools receive training in early literacy acceleration. Assessment data from the 2020-2021 school year finds that SDUSD students experienced lower literacy outcomes due to the COVID-19 Pandemic. SDUSD implemented accelerated learning strategies in the 2021-2022 school year, continuing the program through this year.¹² SDUSD’s acceleration plan focuses on rigorously training teachers in Science of Reading instructional strategies so that they can successfully help students who are behind grade level to meet standards within a school year. SDUSD’s literacy instructional strategies include whole class instruction, as well as small group and targeted learning strategies.¹³ SDUSD takes a holistic approach to literacy acceleration, providing multiple types of training and support to a diverse group of education partners, as outlined in Figure 1.5.

Figure 1.5 District-Wide Supports for Literacy Acceleration

TEACHERS	<ul style="list-style-type: none"> ▪ Monthly professional learning opportunities: Throughout the school year, all Grade UTK-2 educators receive monthly training from literacy experts with professional learning opportunities to develop an understanding of research-based reading practices that support acceleration. ▪ Summer Virtual Literacy Institute: A three-day Summer Virtual Literacy Institute is offered to all Grade UTK-2 educators. Sessions are organized by grade level to allow educators to engage in specific, meaningful learning opportunities. Multiple sessions are offered each day on topics, such as the use of formative assessments, timely feedback to learners, conditions for learning, and the foundations of reading instruction. ▪ Fountas and Pinnell Assessment Training: Multiple training opportunities are offered to prepare educators to administer the Fountas and Pinnell Benchmark Assessment.
PARAEDUCATOR TRAININGS	<ul style="list-style-type: none"> ▪ Differentiated professional learning opportunities are offered to all Grade UTK-12 paraeducators during the summer and throughout the school year. Facilitated by literacy experts, sessions focus on supporting teachers and students in accelerating student learning.
SCHOOL LEADERS	<ul style="list-style-type: none"> ▪ All elementary principals attend learning sessions throughout the year. During these sessions, principals learn and reflect on high leverage leadership practices that enable them to determine next steps for building capacity and sustaining professional learning at their site.
SCHOOL MATERIALS	<p>All sites receive materials and resources to the strengthen reading instruction, which include:</p> <ul style="list-style-type: none"> ▪ A Grade UTK-5 guided reading set of leveled books (Levels A-U) for all elementary Site Book Rooms. ▪ Access to the Okapi Digital Library including shared and guided reading books, lessons, and vocabulary starters. ▪ A Fountas and Pinnell Benchmark Assessment Kit for all Grade UTK-2 teachers ▪ Materials in English and Spanish (Dual Language Schools)

Source: San Diego Unified School District¹⁴

In addition to district-wide efforts, SDUSD provides intensive support to “focus schools” which are 31 elementary schools where 60 percent or more students are not meeting grade-level reading standards. Focus school teachers attend two extra days of the Summer Virtual Literacy Institute, during which grade teams

¹² “Literacy Acceleration Plan REVISED.” San Diego Unified School District, 2022. https://drive.google.com/file/d/1KGoJa-guUkFMJ4QDupRNbXfk5-2CAmVi/view?usp=embed_facebook

¹³ “Learning Acceleration and Recovery Resources.” California Department of Education. <https://www.cde.ca.gov/fg/aa/ca/learningrecpgms.asp>

¹⁴ Figure content verbatim from “Literacy Acceleration Plan REVISED,” Op. cit.

work with literacy experts to plan their first month and a half of reading lessons. Focus schools also receive additional materials, including “Guided Reading Texts (Paired Fiction/Nonfiction) with accompanying independent Reading/Take-Home books” and “Shared Reading Big Books and matching small book sets.”¹⁵ Further instructional supports for focus school teachers are outlined in Figure 1.6.

Figure 1.6 Focus School Instructional Supports

<p style="text-align: center;">READING SUPPORT TEACHER</p> <ul style="list-style-type: none"> ▪ Each focus school is allocated a full-time central office resource teacher whose primary responsibility is to provide direct, daily classroom push-in supplemental small group reading instruction to students in Grades UTK-2. Students receive intensive reading support by participating in three-to-four-week acceleration cycles. ▪ Reading support teachers attend monthly professional learning sessions with instructional coordinators and literacy experts. Sessions focus on high leverage reading strategies, stages of reading development, and acceleration strategies. ▪ Reading support teachers receive on-site support and coaching throughout the year from Okapi Consultants and instructional coordinators. 	<p style="text-align: center;">SITE-BASED PROFESSIONAL LEARNING</p> <ul style="list-style-type: none"> ▪ Grades 1 and 2 focused school teachers receive release time throughout the school year by highly trained Visual And Performing Arts (VAPA) enrichment teachers who provide students with instruction in dance, visual arts, theatre, and music. During the release time, teachers participate in planning, designing, and observing lesson demonstrations led by Okapi Consultants and instructional coordinators. ▪ Professional Learning Communities (PLCs) also meet during the release time to monitor student progress, analyze reading data, plan as a grade level team, set learning targets, and reflect on teaching practice. ▪ Additionally, Okapi Consultants provide demonstration lessons to Grade UTK-2 teachers in read aloud, shared reading, interactive writing, small group reading, and guided reading.
<p style="text-align: center;">INSTRUCTIONAL COORDINATOR</p> <ul style="list-style-type: none"> ▪ Instructional coordinators are assigned to support focus school leaders and Grades UTK-2 educators in implementing and sustaining the literacy acceleration plan at their site. ▪ Instructional coordinators supervise, support, and coach the reading support teachers. 	<p style="text-align: center;">PROFESSIONAL LEARNING COMMUNITIES (PLCS)</p> <ul style="list-style-type: none"> ▪ Grade UTK-2 educators can take advantage of additional funds to schedule other opportunities each month for additional PLC time. ▪ The purpose of the additional PLC time is to provide educators with collaborative time to monitor student progress and reading development.

San Diego Unified School District¹⁶

Results from the 2022 National Center for Educational Statistics reading assessments find that SDUSD’s literacy outcomes have remained consistent since 2019. While most California districts saw a decline in reading outcomes, SDUSD saw consistency in Grade 4 outcomes and growth in Grade 8 reading outcomes.¹⁷ While these outcomes do not assess SDUSD’s early acceleration efforts, they do call attention to SDUSD’s approach and strategy when it comes to COVID-19 learning loss.

¹⁵ Ibid.

¹⁶ Figure content verbatim from Ibid.

¹⁷ [1] Darling-Hammond, L. “The Road to Recovery in Learning: How California Points the Way.” Learning Policy Institute, 2022. <https://learningpolicyinstitute.org/blog/covid-road-recovery-learning-how-california-points-way> [2] Ireland, E. “SD Unified Reading Scores Steady, While Math Scores Decline, Federal Report Says.” Times of San Diego, 2022. <https://timesofsandiego.com/education/2022/10/24/sd-unified-reading-scores-steady-while-math-scores-decline-federal-report-says/>

SECTION II: SPOTLIGHT DISTRICTS/INFORMATION

The following section provides information on spotlight districts that have implemented accelerated secondary math programs and accelerated early literacy programs.

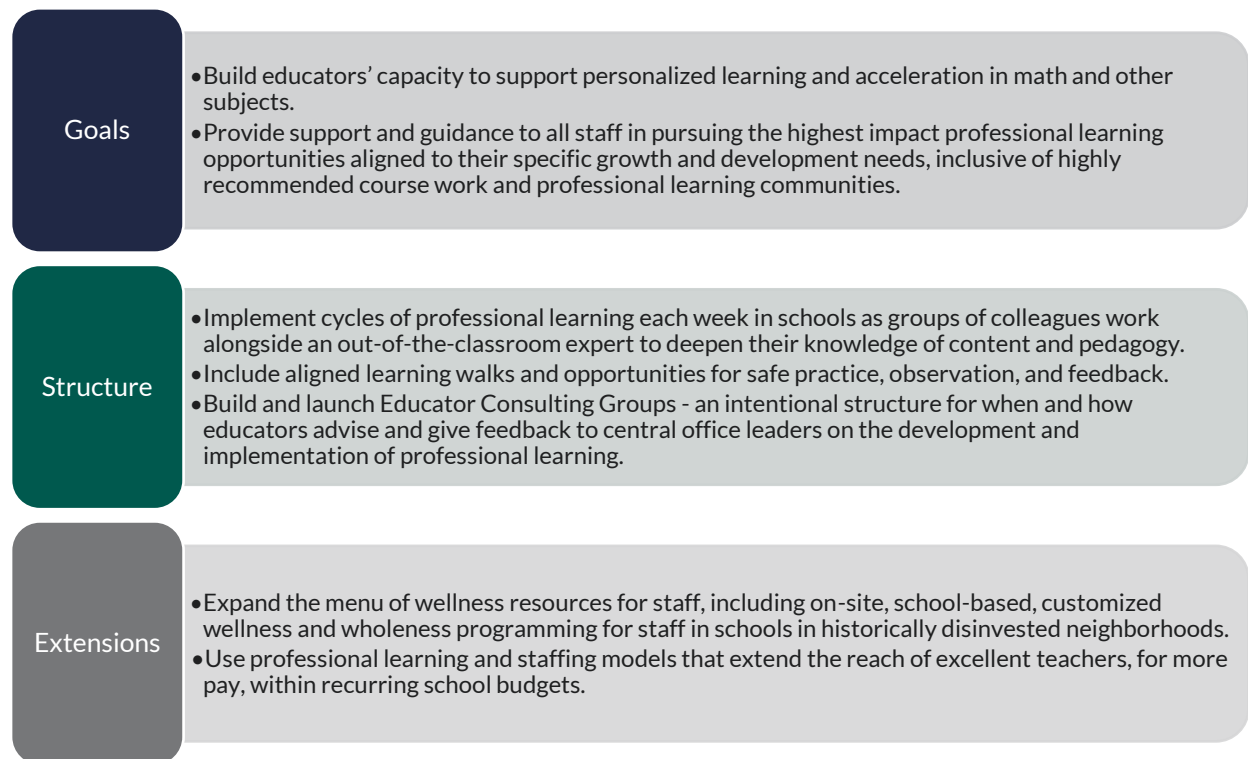
SECONDARY MATH SPOTLIGHTS

The following subsection outlines information on spotlight districts that are implementing secondary math acceleration to close achievement gaps due to the COVID-19 Pandemic.

BALTIMORE CITY PUBLIC SCHOOLS

Baltimore City Public Schools (BCPS) uses intensive professional learning to train teachers in effective math instruction. Professional learning is regularly occurring, and focuses on instructional strategies in core content areas, as well as on specific acceleration strategies.¹⁸ Figure 2.1 outlines key aspects of teacher professional learning in BCPS's recovery plan.

Figure 2.1 Teacher Professional Learning



Source: Baltimore City Schools Recovery Plan¹⁹

In addition to providing professional learning, BCPS is focusing on acceleration efforts in instructional support for middle school students. To help middle school students reach grade level, the district is hiring more algebra teachers to virtually teach Algebra 1 to students behind grade level in math. The district hopes that offering more algebra courses will ensure that all students are meeting foundational algebra standards

¹⁸ "RRR City Schools Recovery Plan." Baltimore City Public Schools, 2022. p. 37. https://drive.google.com/file/d/1m0pCRR-O4qMTIp2A6GqWDqynnWvAHAjf/view?usp=embed_facebook




¹⁹ Figure content mostly verbatim from Ibid., pp. 37–38.

upon Middle School graduation. BCPS also plans to add advanced math courses in Grades 6 and 7 to provide students with rigorous coursework opportunities.²⁰

ALBUQUERQUE PUBLIC SCHOOLS

Albuquerque Public Schools (APS) secondary students' math achievement suffered due to the COVID-19 Pandemic. Results from the 2021 Measures of Student Success and Achievement (MSSA) exam and SAT School Day Grade exam find that approximately 75 percent of middle and high school students are not meeting grade level math standards.²¹ Figure 2.2 outlines APS' overarching plan to accelerate instruction and close learning gaps.

Figure 2.2: APS Accelerated Learning Plan

TEACHER RETENTION	PROFESSIONAL LEARNING	STUDENT LEARNING
 <ul style="list-style-type: none"> ▪ Motivate teachers to stay in-state through historic pay raises for all educators. ▪ Recruit teachers on a national scale to ensure students have highly qualified professionals to learn from during the nation's teacher shortage. 	 <ul style="list-style-type: none"> ▪ Invest in differentiated professional learning for school leaders to elevate the leadership, systems, instruction, and culture in schools, leading to positive student outcomes. ▪ Increase professional learning to support high school mathematics instruction. ▪ Work cross-departmentally to gather data for use in instructional, budgetary, and policy decisions. 	 <ul style="list-style-type: none"> ▪ Develop a plan for focused tutoring before, during, and after the school day. ▪ Provide students with greater exposure to grade-level content by ensuring they have access to digital devices.

Albuquerque Public Schools²²

In addition to professional learning at the high school level, APS has two programs to accelerate learning for students at the middle and high school levels, including a camp at the middle school level and intensive math interventions at the middle and high school levels.²³ Figure 2.3 outlines the main components of APS's accelerated learning programs.

²⁰ "City Schools' English Language Arts and Math Investments Contribute to Gap Closure on 2022 Maryland Comprehensive Assessment Program | Baltimore City Public Schools." <https://www.baltimorecityschools.org/MCAP-2022>

²¹ "APS Test Scores Will Establish a Baseline for Improving Student Outcomes." Albuquerque Public Schools, 2022. <https://www.aps.edu>

²² Figure content verbatim from Ibid.

²³ [1] "APS Hosts Mid-School Math Camp." Albuquerque Public Schools, 2022. <https://www.aps.edu> [2] "Math 180." Albuquerque Public Schools. <https://www.aps.edu>

Figure 2.3 APS Math Accelerated Learning

Middle School Math Camps

- Bridge to Enter Advanced Mathematics (BEAM) camp is for rising Grade 7 students from underserved districts for learning advanced math.
- Camp is free and includes transportation, breakfast and lunch, field trips, t-shirts, binders, and all necessary materials.
- Students spend their day in math classes and Open Math Time, where they work on classwork or the 100 Problem Challenge – a camp-wide challenge for prizes. Students also participate in math relays, listen to guest speakers from various STEM fields, and go on field trips.
- Students enjoy the interactive math activities and derive confidence and a sense of accomplishment from solving difficult math problems over the course of multiple days.

Grades 5-12 Math 180

- Students performing two grades or more below grade level receive small group or 1:1 support that addresses their individual needs through adaptive instructional software and direct instruction in essential skills and concepts necessary to master algebra and advanced mathematics (blended learning model).
- Digital support helps students work through challenges while individualized technology provides immediate feedback specific to students' errors, fostering comprehension to build a sense of success.
- Daily blended learning provides face-to-face time with an attentive teacher who can build productive relationships and support academic growth.
- Daily small-group learning gives students the opportunity to develop deep relationships with their classmates and teachers through focused academic interaction and collaboration.
- Participating teachers receive relevant professional learning three times a year, as well as support from a math coach.

Sources: Albuquerque Public Schools, Houghton Mifflin Harcourt²⁴

ELEMENTARY LITERACY SPOTLIGHTS

The following subsection provides information on spotlight districts that have implemented accelerated literacy strategies.

BALTIMORE CITY PUBLIC SCHOOLS

Baltimore City Public Schools (BCPS) uses individualized tutoring, a Science of Reading curriculum, and professional learning to accelerate literacy learning for early elementary school students. BCPS began accelerated early elementary literacy programming in the 2018-2019 school year and continued the programming throughout and after the COVID-19 Pandemic, leading to improved early literacy outcomes.²⁵ Student literacy outcomes were further boosted by rigorous teacher professional learning that BPS implemented in the 2021-2022 school year to offset COVID-19 learning loss. The professional learning trains teachers in phonics-based reading instruction and how to align that instruction with current standards. Figure 2.4 outlines BCPS's pre-pandemic literacy interventions that use a combination of curricular and instructional supports.

²⁴ [1] Figure content adapted and verbatim from "APS Hosts Mid-School Math Camp." Albuquerque Public Schools, 2022. <https://www.aps.edu> [2] "Math 180." Albuquerque Public Schools. <https://www.aps.edu> [3] "Math 180 Program, 5-12 Intervention Curriculum." Houghton Mifflin Harcourt. <https://www.hmhco.com/programs/math-180>

²⁵ [1] "Blueprint for Success." Baltimore City Public Schools. <https://www.baltimorecityschools.org/blueprint> [2] "City Schools' English Language Arts and Math Investments Contribute to Gap Closure on 2022 Maryland Comprehensive Assessment Program." Baltimore City Public Schools, 2023. <https://www.baltimorecityschools.org/MCAP-2022>

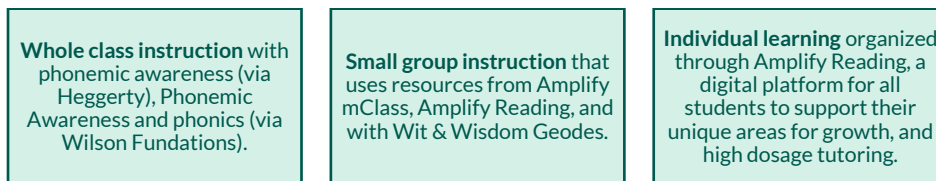
Figure 2.4 BCPS Pre-Pandemic Early Literacy Acceleration Plan



Source: Baltimore City Public Schools²⁶

BCPS uses a flexible learning model, including a high dosage tutoring model, to accelerate learning for students. BCPS was developing this model before the COVID-19 Pandemic. The model has helped BCPS close literacy gaps since the COVID-19 Pandemic. At the beginning of the school year, BCPS administers DIBELS 8 assessments to all students, and uses the results to provide students with relevant literacy support.²⁷ Figure 2.5 outlines the main elements of BCPS’s flexible learning model.

Figure 2.5 BCPS’s Flexible Literacy Model



Source: Baltimore City Public Schools²⁸

BCPS’ high dosage tutoring model leads to improved literacy outcomes for Grades K-2 students. Research finds that students receiving reading tutoring are reaching literacy benchmarks faster than peers. In addition, their assessment scores are on average three percentage points higher than students do not receive the intervention. BCPS currently funds high dosage tutoring at 28 schools, expanded from 14 the previous year. Tutors work with students Monday through Friday, for thirty minutes a day, on foundational reading skills, such as phonemic awareness and letter-sound correspondence. Small group tutoring interventions cost approximately \$800-\$1,200 per student and individual tutoring interventions cost approximately \$1,200-

²⁶ Figure content verbatim from “Blueprint for Success,” Op. cit.

²⁷ [1] “Reading Readiness and Elementary Literacy.” Baltimore City Public Schools.

<https://www.baltimorecityschools.org/reading-readiness-and-elementary-literacy> [2] “K-2 Students Boost Literacy Scores Thanks to ‘High-Dosage’ Tutoring.” Baltimore City Public Schools, 2022. <https://www.baltimorecityschools.org/progress-high-dosage-tutoring>

²⁸ Figure content verbatim from “Reading Readiness and Elementary Literacy,” Op. cit.

\$2,000 per student.²⁹ Figure 2.6 outlines best practices for literacy tutoring programs derived from the BCPS tutoring program in partnership with the Abell Foundation.

Figure 2.6 Best Practices for Literacy Tutoring

Successful programs use a phonetic approach that emphasizes phonemic awareness, phonics, comprehension, fluency, and vocabulary.

Successful tutoring programs use structured, sequenced approaches, with specific teacher’s manuals and materials.

In successful programs, tutors almost always have some college education.

“Paid volunteers” (i.e., AmeriCorps members paid a living stipend for working full-time) can work well as professional tutors.

Successful programs are provided during the instructional day to increase student participation.

Successful programs provide at least 60 sessions, generally around 30 minutes per session 3-5 times per week.

Professional development provides in-service training that includes simulations with actual students or with peers, plus ongoing monitoring and coaching.

Effective tutors maintain close contact with classroom teachers to discuss progress of students, and to collaborate closely with supervisors and other tutors.

A best practice is to implement proven tutoring programs across the board, not for each tutor or school to make up their own approaches based on general principles.

Source: Abell Foundation³⁰

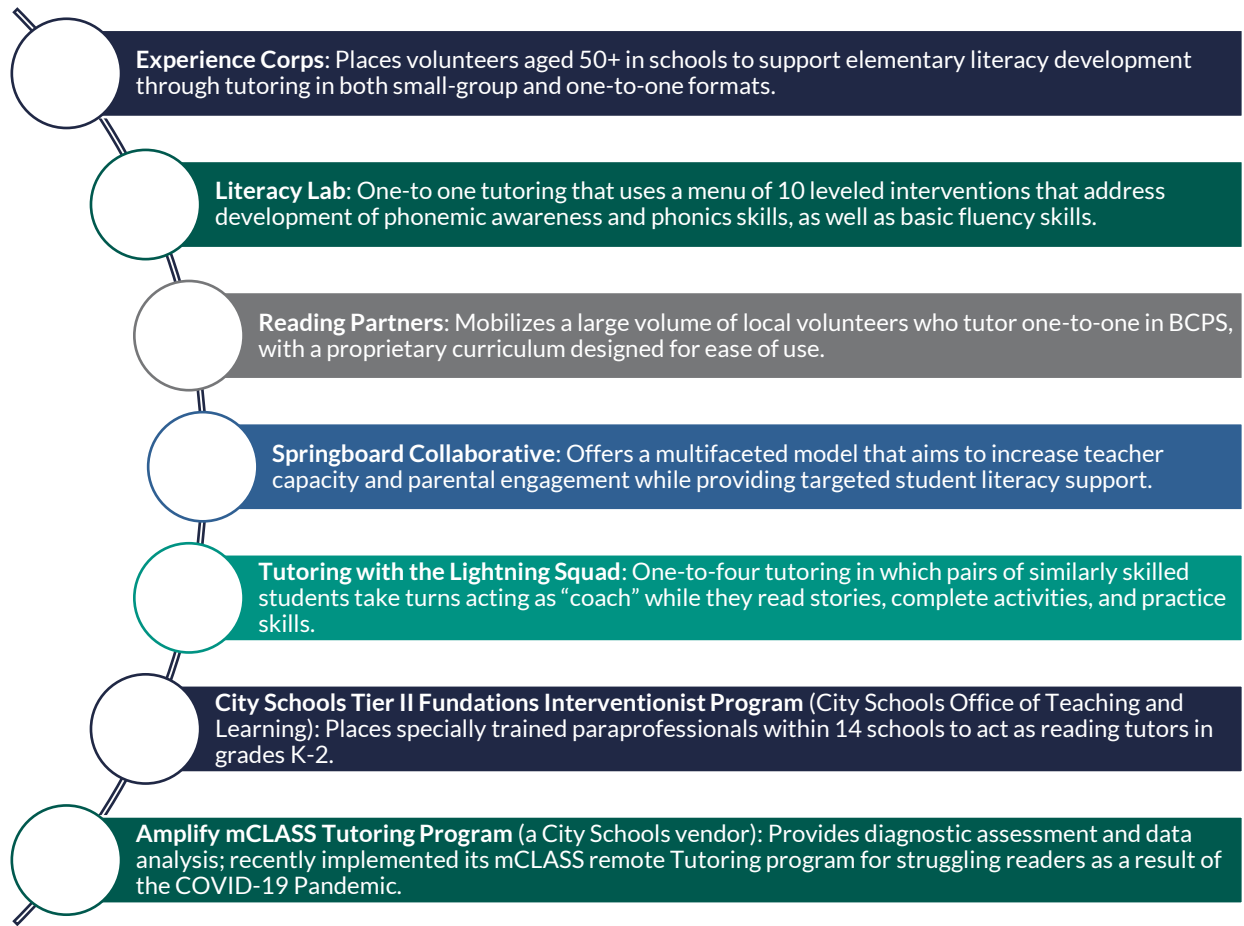
BCPS collaborates with outside organizations and state-run organizations to recruit tutors to work with students. The recruited tutors work closely with classroom teachers throughout the school year to discuss students’ goals and to effectively meet students’ needs. Teachers and tutors also collaborate to track student data to inform the focus of tutoring sessions. Tutors are recruited from a diverse group of community and city organizations, and work in groups led by literacy specialists.³¹ BCPS recruits tutors using city programs as well as community organizations, as outlined in Figure 2.7.

²⁹ “K-2 Students Boost Literacy Scores Thanks to ‘High-Dosage’ Tutoring,” Op. cit.

³⁰ Figure content mostly verbatim from “Literacy Tutoring for Baltimore: What We Know, Where We Are, and How to Move Forward.” 2021. <https://files.eric.ed.gov/fulltext/ED613417.pdf>

³¹ “K-2 Students Boost Literacy Scores Thanks to ‘High-Dosage’ Tutoring,” Op. cit.

Figure 2.7 BCPS Tutor Recruitment



Source: Abell Foundation³²

³² Figure content verbatim from “Literacy Tutoring for Baltimore: What We Know, Where We Are, and How to Move Forward.,” Op. cit.

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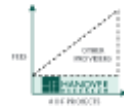
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