RESEARCH BRIEF

Persistent Challenges and Promising Practices:
District Leader Reflections on Schooling During COVID-19

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In spring 2020, the COVID-19 pandemic led schools across the country to close their doors and transition to distance learning. One year later—in spring 2021—districts continued to adapt to the persistent and evolving challenges of schooling during the pandemic. With variations in state guidelines and community needs, the importance of understanding the education landscape across the United States is greater than ever.

The American Institutes for Research (AIR) launched two national surveys to better understand how school districts across the country have responded to the pandemic. The first National Survey of Public Education's Response to COVID-19 was sent to leaders in approximately 2,500 school districts in May 2020 and received 753 responses.[1] Results from the first survey appear in a collection of research briefs published between July 2020 and April 2021, which are available on the project page. The second survey was sent to the same sample of 2,500 leaders, as well as an additional 10,000 districts that were not included in the original survey sample. Administration took place in April 2021, with 565 districts responding from 46 states.[2]

The second survey invited district leaders to describe challenges they were facing and promising practices emerging in their responses to students' needs. Earlier briefs in this series reported on the closed-ended questions and described the ways in which

About This Brief

- This brief examines COVID-19 pandemic-related challenges and related promising practices raised by district leaders.

- Districts reported expanding their collection and use of formative data, adding supplemental programs, and redesigning instructional strategies to address effects of lost instructional time.

- Leaders addressed some infrastructure challenges, including staffing shortages, through increased access to technology and improved capacity among teachers to deliver online instruction. Districts may also leverage technology supports to use student grouping strategies to mitigate health concerns and increase instructional efficacy.

- Some districts committed resources to increasing students' access to social and emotional supports, including adding counseling staff, providing teachers with professional development on social-emotional learning, and establishing student leadership opportunities.

the [mode of instruction](#) (Hodgman, Rickles, Carminucci, & Garet, 2021), concerns about [student attendance](#) (Carminucci, Hodgman, Rickles, & Garet, 2021), and concerns about [academic learning](#) (Rickles, Hodgman, Carminucci, & Garet, 2021) differed across districts.

This brief focuses on what district leaders reported in response to open-ended survey questions about the challenges they faced and the promising practices that emerged to address those challenges. We conducted a thematic analysis of these narrative responses, identifying overarching themes and patterns in the data as well as their relative frequency among survey participants. This brief summarizes the major themes across district leaders' narrative responses.

Topics Related to Challenges and Promising Practices

With respect to challenges and promising practices, three major topic areas emerged from district leaders' narrative responses: learning approaches, infrastructure, and social-emotional support and engagement. Table 1 shows the frequency with which district leaders raised these topics.

Table 1. Frequency of Topics Raised by District Leaders (N = 565)

Topic Areas	Challenges	Promising Practices
Learning and Instruction	45%	39%
Infrastructure and Staffing	25%	35%
Social-Emotional Support and Engagement	25%	25%

Note. Some leaders commented on multiple topic areas. Not all of the 565 respondents provided open-ended comments about both challenges and promising practices. The table indicates the percentage of possible respondents who commented on a topic area.

This brief includes three main sections—one for each of the three major topic areas. Each section details the various themes that emerged from the data analysis, explores the relationship between the challenges and promising practices described by leaders, and identifies potential strategies for mitigating future challenges.

Learning and Instruction

The most common topic mentioned by district leaders was learning and instruction: when asked about challenges, 45% of the responses focused on this topic and 39% of the promising practices focused on learning and instruction. Two major themes—meeting students' learning needs and virtual instruction—emerged from district leaders' challenges and promising practices related to learning and instruction. Table 2 summarizes the most common learning and instruction challenges and related promising practices described by district leaders.

Table 2. Themes Across Learning and Instruction Challenges and Promising Practices

Theme	Challenges	Promising Practices
Meeting Students' Learning Needs	Measuring loss and gaps in student learning	Increased formative assessments to track student progress
	Addressing the needs of students who have fallen behind academically	Offered supplemental programs
		Redesigned instructional strategies
Virtual instruction	Delivering high-quality instruction virtually	Built on growth in teachers' virtual instruction skills

The following sections describe the challenges related to these themes and the promising practices described by district leaders that may help mitigate these challenges in the future.

Meeting Students' Learning Needs

Challenge: Measuring loss and gaps in student learning. The majority of district leaders' comments about student learning and achievement focused on "learning loss," or instructional time lost due to COVID-19 pandemic responses, such as added health and safety measures or building remote instruction capacity. Because many states did not conduct statewide standardized testing in spring 2020, district leaders had to find other ways to measure student learning beyond standardized assessments. According to one district leader, "We have a general sense of the issue, but getting down to specific students and specific gaps is a challenge we are beginning to unpack." Another district leader shared that they were struggling with "clearly identifying who need[s] support and how best to support those students."

Promising Practice: Increased use of formative assessments to track student progress. District leaders described collecting and using more formative data in the absence of standardized test data. Leaders guided teachers and schools to use teacher-created assessments, curriculum-based assessments, or nationally normed commercial assessments such as NWEA Measures of Academic Progress (MAP) and Aimsweb more frequently than in previous years. District leaders described collecting "biweekly formative assessments," "district formative assessments," "pre-unit assessments," and "student surveys" to assess students' ongoing learning needs. District leaders shared that the increased use of formative assessment data also supported more consistent use of intervention approaches such as Response to Intervention (RtI) and Multi-Tiered Systems of Support (MTSS).[3]

> *"Using local benchmarks and continuous evaluation allows teachers and interventionists to meet students where they are with any potential learning loss…. The flexibility to forego state testing in favor of more accurate local benchmarks and learning targets provides teachers [with] the time and data needed to help each student succeed and meet their goals."*
>
> — District leader, low-poverty suburban district

Challenge: Addressing the needs of students who have fallen behind academically. The most frequently mentioned concern about meeting students' academic needs was helping those who have fallen behind. Many district leaders stated that their biggest challenge was "learning loss" or "returning students to grade level." According to one district leader, "Getting students and teachers back to performing and expectations that were normal pre-pandemic has been our biggest challenge. Everyone got comfortable with accommodating and lowered expectations."

Promising Practice: Offered supplemental programs. District leaders described offering supplemental learning opportunities to mitigate the effects of lost instructional time in core subjects. Administrators mentioned tutoring (including embedded daily tutoring and "high-dosage" tutoring); extending the school day; Saturday school; and summer "boot camp," "jump-start" or enrichment programs. Some district leaders described plans to use federal recovery funds to support these supplemental programs.

Promising Practice: Redesigned instructional strategies. A few districts said they plan to build on lessons learned by offering supplemental learning opportunities through online platforms. By maintaining the infrastructure and online content, districts will expand course offerings that were not possible in person. For example, one district is providing individual, self-paced courses for junior high and high school students using an online curriculum package. Districts also plan to address credit recovery for high school students through online support, including expanded course options and online classes offered outside of the school day. One district leader shared, "We are developing a level of flexibility and programmatic differentiation that must not be lost. I see great potential for the improvement of our educational programs as well as for developing much needed financial improvement through the use of flexible instructional redesign."

District leaders also described changes in core instructional programs intended to strengthen instruction and accelerate learning. Several leaders described a renewed focus on standards-based instruction and essential standards to ensure student attainment of key skills. Others said their schools are "finally" implementing various evidence-based or promising practices—such as personalized learning, project-based learning, and competency-based instruction—suggesting the disruption has made substantial changes possible.

> *"This pandemic has positively influenced us by enabling us to finally complete our 1:1 initiative, launch our high school modified block schedule initiative, integrate quality resource time/enrichment time into our secondary programs, fully engage blended learning opportunities and increase remote learning instructional practices with all of our teaching staff, and even find a blended learning weekly plan that we are beginning to pilot in the coming weeks."*
>
> — District leader, medium-poverty town district

Virtual Instruction

Challenge: Delivering high-quality virtual instruction. Some district leaders said that virtual instruction practices posed challenges in their districts; they expressed concern about teacher efficacy in providing online instruction or supporting simultaneous in-person and virtual instruction. In addition, some district leaders shared that they had teachers who struggled to effectively modify their instructional practices for a virtual setting.

Promising Practice: Built on growth in teachers' virtual instruction skills. Some district leaders described how their staff benefited from the switch to virtual instruction. Some leaders said that, through daily practice and with professional development support, teachers quickly learned technology skills and consistently modified their content and delivery to increase accessibility and engagement for students. One district leader observed, "More of our 'traditional' teachers have become more comfortable with use of instruction technologies and platforms." District leaders noted that engagement in teachers' professional learning communities increased as teachers met online and relied on colleagues for support as they updated lessons for online delivery and identified solutions to challenges. Virtual technology also made professional learning opportunities more accessible to teachers through asynchronous content.

Infrastructure and Staffing

When discussing challenges and promising practices, district leaders frequently mentioned topics related to infrastructure. About 25% of comments about challenges and 35% of comments about promising practices were related to the infrastructure that supports teaching and learning. Three major themes emerged across these comments: staffing, health and safety, and technology. The most common infrastructure challenges and related promising practices described by district leaders are summarized in Table 3.

Table 3. Themes Across Infrastructure Challenges and Promising Practices

Theme	Challenges	Promising Practices
Staffing	Finding qualified teaching staff	Used technology-based instruction
		Supplemented instructional staff
Health and Safety	Meeting health and safety regulations	Modified class sizes
		Modified building-wide routines
Technology	Ensuring student access to technology	Increased access to devices and internet services

Staffing

Challenge: Finding qualified teaching staff. Staffing shortages—in particular, teacher shortages—were one of the major infrastructure challenges reported by district leaders. Respondents described these shortages in terms of lower retention rates, fewer applicants, insufficient applicant qualifications, and depleted substitute rosters. One district leader said that supporting staff as they took on the additional work of providing remedial services to students was a challenge. Some district leaders also stated that their staffing challenges were due to teachers being "anxious" about in-person instruction.

Promising Practice: Focused on technology-based instruction. Some district leaders described promising practices focused on using innovative, technology-based strategies to "multiply" staff, increasing their reach to provide support for daily instruction and supplemental programs. District leaders described providing more technology-enabled instruction that included blended learning; flipped classrooms with pre-instructional support through video content; and allowing for continued, asynchronous access to online lessons.

> *"The flipped classroom practices have become very helpful to our students to be able to control the speed of their instruction and review concepts or content in which they need additional support."*
>
> — District leader, high-poverty rural district

Promising Practice: Supplemented instructional staff. Some district leaders described hiring paraprofessionals, aides, and other staff to teach smaller groups of students or to provide targeted tutoring services when student group sizes were limited by local or state health guidance. For example, one district staffed online classes with an additional paraprofessional to work with small groups of students in breakout rooms. In this case, the district leader said that students received extra support in small, semiprivate groups. Other district leaders described creating new instructional positions, such as:

- Reading instructional coaches
- Nurses and counselors
- A counselor to track academic performance and assign tutoring
- A virtual learning liaison

Some district leaders described building community partnerships to provide additional sources of academic and social-emotional support for students outside of the school day. Community partners ran tutoring programs or enrichment activities online or in socially distanced groups.

Looking forward, some district leaders posited that their improved technology infrastructure will reduce future disruption by enabling students to maintain access to instruction when they are unable to attend school in person. Similarly, a few leaders said the practice of recording lessons will support on-demand review, thereby ensuring that students who would benefit from more flexible scheduling will be able to access instruction.

Health and Safety Practices

Challenge: Addressing concerns about health and safety practices. Another common challenge shared by district leaders was the lack of space for social distancing for students attending school in person. This challenge was also related to staffing challenges: Some district leaders shared that teachers' anxiety about returning to in-person instruction was related to concerns about health and safety.

Promising Practice: Modified class sizes. School leaders discussed a range of approaches to limiting indoor gatherings in accordance with national and local guidance. These approaches included reducing class sizes to groups of 10 to 15 students, using block scheduling to minimize movement of students around the building (e.g., having students focus on a single subject each day), and using hybrid scheduling models (e.g., a cohort model in which small groups of students rotate between in-person and virtual instruction). Some district leaders described the social and academic benefits of small class sizes, noting that teachers and students built stronger connections and students' needs for differentiated instruction were more apparent in settings with lower teacher–student ratios. Some district leaders shared their hopes of maintaining small class sizes as students return to school in person.

> *"We reduced class sizes to 16 or fewer throughout the elementary grades and hired additional staff, spreading students out in small, self-contained pods (think one-room schoolhouses) throughout the district. We are seeing the connection and knowledge of each individual student by the teacher being so much stronger with these small class sizes."*
>
> — District leader, medium-poverty town district

Other district leaders described providing support services to students based on their academic needs. For example, some district leaders required lower achieving students to attend small-group or one-on-one tutoring (either in person or online) while other students worked independently. Similarly, one district required lower achieving students to return to the building for in-person instruction while higher achieving students continued to work remotely. Another district reported providing 4 days of instruction for all students, reserving Fridays to focus exclusively on remediation for students who were behind academically.

Promising Practice: Modified building-wide routines. Some district leaders changed various building-wide routines to allow their schools to maintain in-person instruction throughout the pandemic. These routines included arrival, dismissal, lunch, and recess procedures as well as updated cleaning protocols. Some district leaders described plans to sustain these changes moving forward; for example, one district leader credited the elimination of locker usage with an improvement in hallway behaviors.

Technology Access

Challenge: Ensuring student access to technology. Some district leaders shared challenges regarding reliable access to internet and devices. Many of their responses cited "connectivity," "access," and technology challenges related to specific groups of students and families (e.g., "foster, homeless, low socio-economic status"). One district leader described their most pressing challenge as "digital inequity in rural America."

Promising Practice: Increased access to devices and internet services. While some district leaders shared that they already had a 1:1 program (one device per student) in place before the pandemic, some district leaders described providing students with devices such as laptops or tablets and providing families with internet hot spots to reduce the technology gap in many communities. A few district leaders shared that they worked with local providers to ensure low- or no-cost internet access for families. These strategies may also have long-term benefits for instruction: Some district leaders said they plan to continue providing devices and internet services to students to support more technology-driven instruction in the future.

Social-Emotional Support and Engagement

District leaders noted challenges and promising practices related to social-emotional support and engagement about as frequently as they cited infrastructure issues: Approximately 25% of comments about challenges and about 25% of promising practices were related to social-emotional support and engagement. Table 4 summarizes the most common social-emotional and engagement challenges and related promising practices described by district leaders.

Table 4. Themes Across Social-Emotional Support and Engagement Challenges and Promising Practices

Theme	Challenges	Promising Practices
Social-emotional supports	Increased social-emotional needs among students	Established staff support teams
		Integrated social-emotional support strategies
Engagement	Engaging students	Improved instructional delivery
		Increased student voice
	Engaging families	Used a variety of family-outreach methods

Social-emotional supports

Challenge: Increased social-emotional needs among students. Leaders expressed concern about how their districts will address students' social-emotional needs arising from their experiences during the pandemic. While most district leaders' responses mentioned social-emotional needs in general, some specifically cited issues such as "anxiety," "mental health," and "stress."

Promising Practice: Established staff support teams. Some districts enhanced student resources and expanded their focus on students' social-emotional learning. In some cases, districts also increased social-emotional supports for families and teachers. Schools established staff teams such as "student support specialists" and "mental wellness teams" to offer support to students. One district leader noted that their staff were better positioned to understand student needs: "Since many adults also feel off balance during this pandemic, they have become more empathetic of student stress and anxiety levels."

Promising Practice: Integrated social emotional support strategies. Some districts implemented programs such as "trauma-informed responsive classrooms" to support students. District leaders also described how relationships between students and teachers were strengthened through reduced class sizes, mentorship programs, scheduled time for teachers to check in with individual students, and public recognition of students' efforts. For example, one district leader shared that "[t]he teachers have been working together to recognize student achievement and effort. This has had a positive impact on motivating students."

Engagement

Challenge: Engaging students. Some district leaders noted that screen-based instruction was not engaging for all students working remotely. They cited low student accountability and diminished opportunities for social interaction among students as reasons for student disengagement. As one district leader described, "The biggest challenge we face is apathy toward school and online learning. We can provide everything the student needs, but if they aren't interested or a parent is not there to encourage their child to do the work, our hands are tied."

Promising Practice: Improved instructional delivery. Some district leaders reported increased student engagement as teachers improved online instructional delivery, including communicating expectations for online participation more clearly in the 2020–21 school year. Some district leaders described adding online enrichment activities to increase the appeal of virtual instruction for students.

> *"We added new and interesting programs and activities that kids can participate in. It has helped kids stay engaged rather than feel like they are just going through a hunkered down year."*
>
> — District leader, low-poverty urban district

Promising Practice: Increased student voice. Some district leaders sought to increase student voice as a means of increasing student engagement. Strategies to increase student voice included forming student cabinets, surveying students, and creating opportunities for students to share out-of-school activities and accomplishments in virtual events with the school community.

Challenge: Engaging families. Some leaders observed that some families were not able to effectively support learners at home. For some families, these challenges were related to technical issues such as lack of contact information or technology at home. For other families, the challenges were related to stressors exacerbated by the pandemic, including employment and childcare issues.

Promising Practice: Used a variety of family-outreach methods. Through improvements in technology, some district leaders reported being able to better collect virtual attendance data and communicate more effectively with families of remote learners. These technological improvements included offering devices and internet access to families, which leaders credited with increased participation in school-hosted meetings, parent-teacher conferences, and meetings about individualized educational plans. Districts increased family engagement through other outreach strategies:

- Assigning a point person to help families with technology access issues
- Scheduling office hours with school or district administrators to answer families' questions
- Calling families to encourage attendance
- Visiting families at home

Conclusion

The COVID-19 pandemic during the 2020–21 school year introduced challenges and innovative practices in school districts nationwide. For most challenges identified by district leaders in early 2021, relevant practices that leaders considered "promising" were implemented in other school districts.

In the area of learning and instruction, some districts addressed lost instructional time through supplemental programs and redesigned instructional approaches. Educators reportedly gained valuable information about the effect of pandemic-related disruptions on student learning by increasing their use of formative assessments.

Leaders said that providing technology to support individualized instruction and hiring additional support staff addressed some staffing challenges. However, these strategies may not sufficiently address needs experienced by districts with a shortage of teachers or depleted substitute teacher roles. Schools worked to mitigate health and safety concerns for students and teachers by changing their student grouping strategies, including hybrid and small-group instruction; some schools made changes in how students move through the school building. Districts provided devices, internet hot spots, and affordable internet access to reduce gaps in access to online instruction.

Districts renewed their focus on social-emotional learning and support during the pandemic by assembling teams focused on students' emotional wellness and providing teachers with professional development on related topics. In the context of remote learning, student engagement challenges were reportedly mitigated in some districts as teachers developed skills in online instruction and schools clarified expectations for participation. Some districts also formed student committees to increase student voice and to better understand the experiences and perspectives of students. Finally, some districts used technology and assigned staff to strengthen family engagement, thereby increasing communication between schools and home.

The unique context of each school district may include more substantial challenges than those described in this brief, and the promising practices suggested by some leaders may not be feasible in all districts. Further study may reveal the effectiveness of suggested practices and the resources required to implement them. We will continue to learn from one another to understand what works as districts open their schools buildings for the 2020–21 school year.

References

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Endnotes

[1] AIR funded and led the development of the first survey, which was administered by our partner NORC at the University of Chicago. We sent the survey to school districts in every U.S. state and Washington, DC. The sample contained 2,536 districts, stratified by state (for districts in 12 focal states) or region (for districts in the remaining states) and by locale (urban, suburban, town, and rural). Within these strata, districts were drawn with probability proportional to the square root of enrollment. Large districts were drawn with certainty. The survey was open between May 20, 2020, and September 1, 2020, and 753 districts responded during that time frame. Results were weighted to adjust for nonresponse in the 64 state- or region-by-locale strata. More information about the 2020 survey methodology is available in the Preliminary Technical Supplement.

[2] AIR also funded and led the development of the second survey, which was administered by our affiliate IMPAQ International, LLC. We initially sent the survey to the same 2,536 districts described above. Two months into the administration period, we sent the survey to the remaining 10,056 districts in our sampling universe in an effort to increase our sample size. The survey was open between January 26, 2021, and April 7, 2021, and 565 districts responded during that time frame. Results were weighted to adjust for nonresponse. More information about the 2021 survey methodology is available in the Technical Supplement. While the survey response rate is low, observed characteristics of the responding districts reflect average characteristics of the national district sample. In addition, our survey results on the prevalence of in-person instruction are consistent with findings from the Institute of Education Sciences' (2021) School Survey Dashboard, providing reassurance that our survey sample is a reasonable representation of districts across the country.

[3] RTI and MTSS rely on the use of progress monitoring and diagnostic data, which include formative assessments.

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